chain. reaction

The National Magazine of Friends of the Earth Australia

RRP \$5.50



- Anti-wind farm laws are bad politics
- Small island communities, climate change and human rights
- New FoE campaign to protect environmental laws
- Comparing nuclear risks in Japan and Australia
- Australia's Corporate Food Plan
- Chlorine contamination of drinking water
- Uncovering a cancer cluster in Tasmania
- Nuclear South Wales?

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Chain Reaction website

www.foe.org.au/chain-reaction

Chain Reaction contact details

PO Box 222, Fitzroy, Victoria, 3065. chainreaction@foe.org.au email: (03) 9419 8700 phone:

Chain Reaction team

Jim Green, Kim Stewart, Georgia Miller, Rebecca Pearse, Richard Smith, Elena McMaster, Tessa Sellar, Joel Catchlove, Ben Courtice, Kristy Walters, Franklin Bruinstroop

Layout & Design

Tessa Sellar

Printing

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Foe Australia News

Friends of the Earth (FoE) Australia is a federation of independent local groups.

You can join FoE by contacting your local group – see the inside back cover of Chain Reaction for contact details or visit foe. org.au/local-groups

There is a monthly FoE Australia email newsletter - subscribe via the website: www.foe.org.au

To financially support our work, please visit foe.org.au/donate

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New group to build support for wind energy in Victoria

The Victorian Wind Alliance was launched on October 10. Alliance member Taryn Lane of Hepburn Wind said: "The Alliance is being formed in response to a call from communities across the state who support more wind energy. We welcome the active involvement of all sectors of the community: small business, farmers, community and environmental groups, anyone who wants to see a thriving wind industry in Victoria."

The Alliance will be run by an organising committee of eight people from across Victoria but is aimed at bringing together the many hundreds of thousands of people across the state who support wind energy.

Cam Walker from Friends of the Earth, who is also an Alliance member, said: "We invite the broader community to visit our website www.vicwind. info to join for free and to sign on to a statement of support for wind, and to promote the alliance at country meetings, community events and by using social media."

Twitter @VicWindAll Email info@vicwind.info Web www.vicwind.info

Launch of Independent and Peaceful Australia Network

Friends of the Earth is one of the member organisations of the Independent and Peaceful Australia Network (IPAN), which was launched on September 21, the International Day of Peace.

IPAN is opposed to the establishment of foreign military bases and the deployment of foreign troops in Australia and the Asia-Pacific region. In particular, the network is opposed to the stationing of up to 2,500 US marines based in Darwin by 2016-17, the possible upgrading of Stirling Naval base, the stationing of US aircraft at RAAF Base Tindal and the militarisation of the Cocos Islands. Annette Brownlie, spokesperson for the Brisbane IPAN and President of Just Peace, said: "The agreement to allow the permanent deployment of US Marines in Darwin has alarmed many in our own country and our regional neighbours. Countries such as China and Indonesia have expressed their anxieties about this decision, and rightly so as any military intensification by the US and its allies in the region will foster a reciprocal response.'

www.justpeacegld.org

Di Horsburgh R.I.P.

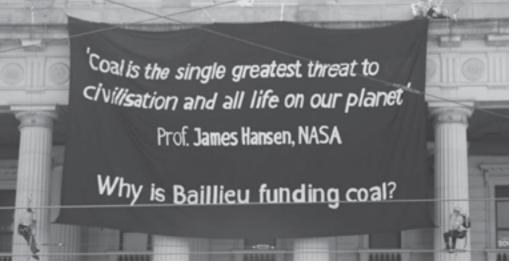
Diana Horsburgh, a founder-member of Friends of the Earth Kuranda, died at her home in Kuranda, north of Cairns, on Saturday 6 October, surrounded by close family and friends.

Di was an inspiring activist. She'll be greatly missed by many in the local community - not least by her friends and colleagues in FoE Kuranda. Her untimely death leaves a large gap in this region's environment movement.

A long-time staff member of The Wilderness Society, Di loved the Australian bush with passion, struggled hard for its protection and was a tireless advocate for the protection of Cape York.

As a key member of the Kuranda Range Defenders, which later became FoE Kuranda, Di helped lead the successful campaign against the proposed four-lane highway on the Kuranda Range in the first decade of this century.

Di was a remarkable woman who did remarkable things - and she had a zest for life that was infectious. After a brief but painful struggle with cancer, Di's spirit is free once again to roam the wild places she loved so much.



Dropping in on Parliament

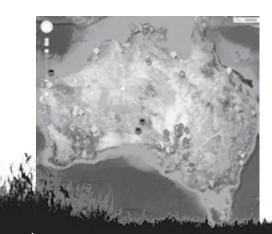
On Monday September 3, four members of FoE Melbourne's Quit Coal campaign climbed onto the roof of Parliament House in Melbourne and unfurled an 86 square metre banner, with a quote from climatologist Prof. James Hansen: "Coal is the single greatest threat to civilisation and all life on our planet." Simultaneously, nine others locked onto the pillars at the front of the building, below the banner. It took four hours for the police to cut off the nine people locked below, as well as one of the climbers who had locked on

The action coincided with a record melt of the Arctic ice sheet – one of the most alarming and dramatic signs of accelerating global warming.

to the top corner of the banner.

Quit Coal activists risked being arrested and fined because Premier Baillieu's plan for a brown coal export industry would effectively triple Victoria's contribution to global warming. And because Australia is already the world's biggest exporter of coal. They demanded that Baillieu retract his \$45 million fund for a brown coal export industry, as a first step in breaking his brown coal addiction.

quitcoal.org.au quitcoal.org.au/blog



Barmah-Millewa Campaign news

FoE Melbourne's Barmah-Millewa Campaign has thanked Alyssa Vass who is moving on from the role of Collective Coordinator, but will continue working as a Collective volunteer. Alyssa, a medical doctor, has taken up the call to work in the field of Indigenous Health.

The Collective has welcomed two new faces, Sam Cossar-Gilber and Will Mooney. Sam is the new Collective Coordinator and Will the Community Campaigner. Both have extensive experience working in environmental and social justice movements.

Following on from previous campaigning work, which helped secure 250,000 hectares of red gum parks and joint management by Traditional Owner groups, the Collective will now be refocusing its energies around the crucial issues of Cultural Flows and Indigenous water rights. Across the Murray Darling Basin, Traditional Owners are demanding the right to manage water in order to meet their cultural, spiritual and social needs. www.melbourne.foe.org.au http://ourdarlingmurray.org

Mapping Australia's nuclear sites

Friends of the Earth has launched australianmap.net, a new online educational resource which brings together information, photos and videos about more than 50 of Australia's nuclear sites including uranium mines and processing plants, the Lucas Heights research reactor, proposed reactor and dump sites, and British nuclear weapons test sites. Visit australianmap.net and see the article on p.28 of this edition of Chain Reaction.

Moratorium on fracking in Victoria

Friends of the Earth welcomed the announcement that the Victorian government has declared a moratorium on new hydraulic fracturing, or fracking, of coal-seam gas (CSG) deposits, as well as a moratorium on all new CSG exploration licenses, and a ban on the use of BTEX chemicals in mineral exploration activities. This is the first positive move from the Baillieu government on the issue of fossil fuels and climate change since it came to power.

As of August, 59 groups, 1,700 individuals, and six local councils had supported the call for a moratorium on CSG. FoE is proud to have played a key role in this campaign and to have worked closely with a range of community groups to deliver this result. We acknowledge the fantastic efforts of Lock the Gate Gippsland, and local groups from Wonthaggi through Mirboo North and Foster and up to Toongabbie and Sale.

While the moratorium is a vindication of the community's concerns about the harmful impacts of CSG mining, the announcement will be inadequate to protect Victoria from the negative impacts of CSG development, and companies will still be able to drill for gas and search for coal across some of Victoria's best farmland.

More information: melbourne.foe.org.au/?q=node/1124 FoE Energy Futures campaign: melbourne.foe.org.au/?q=node/1186

Contact: Leigh Ewbank leigh.ewbank@foe.org.au

Sign the petition at

change.org/petitions/stop-dangerous-coal-seam-gas-mining-in-victoria

In July, FoE's Quit Coal campaign celebrated the announcement that the federal government was no longer willing to provide a \$100 million grant to HRL to build a dirty brown coal power station in Victoria. With friends from other NGOs, Quit Coal held rallies, did banner drops, doorknocked, collected petitions, lobbied and pushed hard for the government to make the right decision about HRL. More information is posted at quitcoal.org. au/2012/07/we-stopped-hrl/



Climate-related displacement in the Pacific

The Climate Frontlines collective of FoE Brisbane, in collaboration with other local groups, held a consultation on September 1 on 'Climate-change-related Displacement and Resettlement in the Pacific'. A number of excellent follow-up action items emerged during the afternoon working group sessions.

On August 22, the opening day of the national conference of the United Nations Association of Australia (UNAA) in Brisbane, Climate Frontlines hosted a Round Table on 'Climate Change and Sustainable Development in the Pacific'. After a screening of the moving film, There Once Was an Island, there were presentations by Ursula Rakova (director of the Carteret Island resettlement program, Tulele Peisa), Donovan Burton (of Climate Planning), Siliga Kofe (formerly of Tuvalu and a former UN official) and Fred Gela (Mayor of the Torres Strait). The recommendations from the Round Table were then presented at the full forum of the UNAA conference for follow up.

To view the recommendations, visit http://tiny.cc/8103lw

Wendy Flannery wendy.flannery@foe.org.au

Dirt radio – FoE show on 3CR

Dirt Radio is a new radio program presented by Friends of the Earth campaigners. The show digs down into the dirt on important environmental and social justice issues, exploring the campaigns, issues and communities involved in defending their local environment. It is on 3CR community radio station in Melbourne on Monday mornings at 10.30am.

*melbourne.foe.org.au/?q=node/1179*Listen live:

www.3cr.org.au/3CR_streaming

What are we drinking?

Friends of the Earth Kuranda, north of Cairns, has been investigating the quality of local drinking water for several years. The water for both Kuranda and Mareeba is sourced from the Barron river with ever-changing water conditions.

Yet the Barron acts as a drain for all sorts of human activities. There are speed boats, diesel and petrol pumps all along the waterways. There is sewage run-off. A gold mining history along the Clohesy River, which runs into the Barron, adds a risk of arsenic and mercury contamination. There are unlined old community dump sites along rivers and creeks.

And of course a largely unmonitored cocktail of synthetic pesticides, fungicides, fertilisers and herbicides is used each year in the catchment and still others, now banned, persist in the soil from decades before. Literally hundreds of different chemicals are in use, each with different breakdown products of varying persistence. When the rains come, these are flushed from the land surface into the river.

Some of these chemicals can accumulate in the body and disrupt hormones in humans. Others contain heavy metals such as cadmium and mercury which can lead to premature aging and nerve damage.

We understand that filtering arrangements for the drinking water supply in Kuranda and Mareeba are not designed to remove these chemicals. This water is tested just twice a year by council for what they say is "a full suite of tests". We have asked repeatedly for a list of what is being tested for and for the results. So far we have not had access to this data though Council will, apparently, be putting these results on its website in future.

Email foekuranda4881@gmail.com for further information or see www.foekuranda.org

Lynas rare earth processing plant

Lynas Corporation recently received a two year temporary operating licence from the Malaysian Atomic Energy Licensing Board. This is an issue of significance to Australians, as the ore to be processed at the plant will come from Mt Weld rare earths deposit in Western Australia. The Lynas Applied Materials Plant hasn't even submitted a proper environmental impact assessment to begin operating of one of the world's largest rare earth refineries, to be located on the east coast of Malaysia in the Pahang state at Gebeng, Kuantan.

The controversial refinery is said to break the strong grip China holds on the rare earth market. Due to minimal environmental laws, China has over 90% of the global market. This has resulted in severe environmental problems, such as in Baotou China, one of the world's most polluted rare earth refinery villages.

Activists and local residents have vowed to shut the Lynas plant and the issue will remain controversial in the run up to Malaysia's national elections, which must be held by the middle of next year.

Tully McIntyre from Friends of the Earth has been working on the campaign from the Melbourne FoE office and was appointed as FoE's spokesperson on the issue at the recent FoE Australia Annual General Meeting.

Contact: tully.mcintyre@foe.org.au, 0410 388187.

Web: stoplynas.org, www.savemalaysia.org

Sign the online petition at communityrun.org/petitions/stop-australian-company-lynas

Exploring the 'Peer-to-Peer' Concept at South Melbourne Commons

Michel Bauwens, the founder of Peer-to-Peer Foundation, together with Cam Walker from Friends of the Earth, shared their insight on the peer-to-peer (P2P) concept at South Melbourne Commons on September 12. With the P2P concept as the basis, Commons movements are emerging globally – the very idea discussed in the 'Collaboration and the Coming of the Commons' that evening.

P2P, which includes peer production, peer governance and peer property, is a specific form of relational dynamic. It is based on the assumed equipotency of its participants, organised through the free cooperation of equals in view of the performance of a common task, for the creation of a common good, with forms of decision-making and autonomy that are widely distributed throughout the network.

P2P invites skillful and willing participants to work together in projects, such as Wikispeed, the fuel-

efficient, sustainable cars; Bitcoin, the digital P2P currency; and Linux, the universal free operating system.

Michel pinpointed the strength of Commons system. "It is every human resource manager's dream, for everyone to be motivated. The system self-selects, it selects only the passionate people", he says.

To learn more about the P2P Foundation, visit www.p2pfoundation. net. Friends of the Earth will employ crowd funding to kick-start an organic farmers market at the South Melbourne Commons. To support it, visit www.pozible.com/index.php/archive/index/10428/description/0/0

– Andrea Saputra, Volunteer, South Melbourne Commons

Corner of Montague and Bank Sts, South Melbourne

pb: (03) 9682 5282

web: www.commons.org.au

email: smc.coordinators@foe.org.au

Water for export cotton dwarfs Cubbie

Twice as much water as Cubbie Station's giant 460 gigalitre (GL) water entitlement is effectively sent overseas every year in the form of irrigated cotton from the Murray-Darling, according to new research released by Friends of the Earth. The analysis compiled Australian government data on annual cotton exports and irrigation water use from 2005 to 2011 and calculates the volume of water embodied in Australia's export cotton crop.

The analysis found that in an average year, 940 GL of water is diverted from rivers in the Murray-Darling Basin to grow cotton which is exported overseas. The Coalition is bickering over whether Cubbie Station's water entitlement should be in foreign hands, but the water will be sent overseas regardless. Instead of endless debates about who owns our cotton farms we should be asking if it's appropriate for them to send so much of our precious water overseas in the first place.

The report is posted at: http://tiny.cc/n5y3lw



FoE International News

Friends of the Earth International is a federation of autonomous organisations from all over the world. Our members, in 76 countries, campaign on the most urgent environmental and social issues, while working towards sustainable societies.

Friends of the Earth International Online

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Youtube channel: www.youtube.com/user/FriendsoftheEarthInt

Action alerts: www.foei.org/en/get-involved/take-action

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FoE's web radio station (in five languages): www.radiomundoreal.fm

FoE International online shop: www.foei.org/en/get-involved/shop (calendars, t-shirts, greeting cards, subscriptions to FoE publications, and more)

Nnimmo Bassey wins Norwegian human rights award

Nigerian environment activist and FoE International chair Nnimmo Bassey has been named this year's winner of Rafto Foundation Award for Human Rights. Nnimmo was chosen, according to the Rafto Foundation, "in recognition

of his long-term fight for people's right to life, health, food and water in a world affected by complex and threatening climate change and mass environmental destruction. Through his rights-based work and criticism of prevailing systems, Bassey has shown

how human rights can help mitigate the effects of these changes."

Nnimmo won the Right Livelihood Award in 2010 and in 2009 he was one of Time Magazine's Heroes of the Environment.

More information: www.rafto.no



International Day against Monoculture Tree Plantations

On September 21, FoE groups in a number of countries marked the International Day against Monoculture Tree Plantations with activities challenging the expansion of palm oil tree plantations destined for agrofuel production, challenging eucalyptus and other monoculture tree plantations grown for export, and exposing over-consumption and consumerism.

Mining and human rights violations in Argentina

Mining in Argentina is a big and growing business. As the industry grows, so too does the resistance. The mining companies continue in their work despite attempts by local and national groups to persuade them of the damage that the industry is causing to local ecosystems, resources and communities. As the resistance has grown and become more direct in its approaches, the response from government and private interests has become more and more severe. Read FoE Argentina's report on the situation, and what they are doing to support the struggle to protect their environment and the people whose livelihoods depend on it, at http://tiny.cc/9s97lw

Global day of action against fracking

FoE International supported the Global Frackdown, an initiative of Food & Water Watch. The Frackdown was a mass global day of action on September 22 with over 125 actions demanding a ban on fracking around the world. Fracking is a highly destructive way of extracting oil or gas from the ground. It involves injecting millions of gallons of water mixed with sand and chemicals into hard shale rocks at high pressure to release the gas or oil that is trapped inside. Fracking threatens our air, water, communities and climate.

More information www. globalfrackdown.org

A Wolf in Sheep's Clothing?

A Wolf in Sheep's Clothing? An analysis of the 'sustainable intensification' of agriculture is a new Friends of the Earth (FoE) International publication. There is growing evidence of the global harm and biodiversity loss being caused by intensive, high-input agricultural production, globalised trade in industrial food, and overconsumption of food in some populations.

The report is posted at foei.org/en/resources

FoE International observer mission to Palestine

FoE International was invited by FoE Palestine (pengon.org) to observe the environmental consequences of the Israeli occupation. The Observer Mission took place between August 26–29. Bobby Peek of South Africa and Eurig Scandrett of Scotland represented FoE International.

Peek and Scandrett met with local mayors, administrators and communities in the West Bank. They witnessed the environmental impact of the Israeli occupation throughout the West Bank. Untreated Israeli sewage and industrial waste contaminates Palestinian land. Water from the West Bank is denied to Palestinians so that Israeli settlers can live on Palestinian land. They also heard stories of the use of military force to destroy Palestinian cisterns and wells.

Financialisation of nature

Attempts under way to assign a commercial value to our forests, lakes and mountains is a disastrous and worsening phenomenon. FoE France recently published a report discussing the severity of this trend, its origins and the reasons it must be turned around. It is titled 'Nature Is Not For Sale!' and is posted at foei.org/en/resources

Eileen Unkari Crombie and Eileen Kampakuta Brown



Friends of the Earth is sad to note the passing of Mrs Eileen Unkari Crombie and Mrs Eileen Kampakuta Brown. Mrs Crombie and Mrs Brown were key members of the Kupa Piti Kungka Tjuta, a senior Aboriginal women's council based at Coober Pedy.

Sister Michele Madigan, who was the 'paper worker' for the Kungkas in the 1990s, writes:

Mrs Crombie was a larger than life character. She was a mover and a shaker, full of good ideas and things to do, to be done.

Mrs Crombie was one of the three kungkas who founded what was to become the Kupa Piti Kungka Tjuta - renowned originally for reviving the Aboriginal women's traditional culture.

It was Mrs Crombie who in the early days spoke up first for all the Kupa Piti Kungka Tjuta who were to lead what became the successful sixyear campaign against the proposed national radioactive dump in SA. In April 1998 when all had just heard of the Government's plan for the radioactive dump down the road as it were at Billa Kallina, it was Mrs Crombie who stood up horrified in the middle of the Kungkas meeting room demanding action. Soon after that, it was Mrs Crombie that gave the direction 'No-one's listening to us. Ring up the Greenies!', resulting in many years of good partnership and selfless work by so many environmentalists from all over the country.

As a storyteller she was almost unsurpassed. A visit to her especially in her latter years was always entertaining. All the senior women had their own style of expression and notable words to contribute to the Irati Wanti – Stop the Poison – campaign. The Government have their ears in their pockets was one of many Crombie classic sayings.



Above: Members of the Kupa Piti Kungka Tjuta. Mrs Crombie is second to left in the back row, with Mrs Brown to her right.

Left: Eileen Brown with Christine Anu

Mes Eiloon Provin was horn a

Mrs Eileen Brown was born around 1932 to Yankunytjatjaru and Pitjantjatjara parents. Her family travelled the country Anangu way in the spinifex and sand hill country. "It was here at Alpanyinta – Sailors Well – that I grew up," said Mrs Brown. "I was working – I learnt whitefella's work; work with the sheep."

Mrs Brown later married Anangu way and also at the Lutheran Church in Coober Pedy. She was working at Wallatinna when the British were testing nuclear bombs at Emu and Maralinga. She remembered the day the ground shook and the black mist rolled from the south and many of her family became ill.

Over the decades Mrs Brown kept very busy teaching Anangu culture and she became involved with the Kupa Piti Kungka Tjuta. Mrs Brown said: "We don't want the culture to die. We want it to give strength to the land and also strength to ourselves, to our children and grand-children.

When she heard of plans for a nuclear dump near Woomera, Mrs Brown said: "We knew enough about the irati (poison) from when we were young girls. We knew we had to fight it."

Many Friends of the Earth activists had the pleasure of working with Mrs Brown, Mrs Crombie and the other Kungkas on the SA dump campaign. As luck would have it, the campaign was won just as FoE's 2004 Radioactive Exposure Tour headed to the SA desert, so the Kungkas and the greenies celebrated at a Woomera camp-site.

In 2003, Mrs Brown was awarded a Member of the Order of Australia.

The Kungka's 'Irati Wanti' website is archived at http://tinyurl.com/y8jbuh8

(Full names and photographs used with permission from the families of Mrs Brown and Mrs Crombie.)

Frank Fisher

Prof. Frank Fisher passed away in August at the age of 68. Frank was a long-term member of Friends of the Earth. But he was so much more – one friend described him as an environmental educator, academic and theorist, electrical engineer, understandascoper, social constructionist, constant cyclist, and chronic disease sufferer.

Another friend said: "Relentless, objective, philosophical, generous, imaginative, insightful, honest, dedicated, friendly – all while grappling with a series of illnesses, any of which would have floored most people. That was Frank. Many people have now lost a lot."

Frank originally trained as an electrical engineer, and completed a Masters of Environmental Studies in Sweden in 1975. He began his career as an engineer in industry and was later director of Monash University's Graduate School of Environmental Science. He joined Swinburne Uni in 2006 as the convenor of graduate programs with the National Centre for Sustainability. In 2008 he was hired by the Dean of Swinburne's Faculty of Design Professor Ken Friedman to guide Swinburne's efforts in sustainable design.

Anthony James from Swinburne University said: "Frank Fisher continues to be pivotal to the richest legacy in sustainability education in this country, bringing to light a way of understanding that truly changes the world, from the inside out."

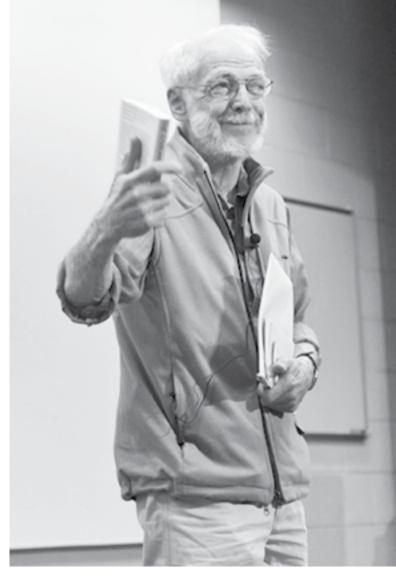
Frank initiated the first inland wind farm in Victoria and the 35 turbines at Challicum Hills have been operating for almost a decade.

He was the recipient of the Inaugural Australian Environmental Educator of the Year award in 2007.

Frank was a health consumer advocate and a contributing member on some 20 national committees. Despite his enormous personal challenges with Crohn's disease, and enduring some 35 operations, Frank used his chronic condition as an opportunity to create positive change. In 2006, a selection of Frank's writings were published as a book by Vista Publications called "Response Ability: Environment, Health & Everyday Transcendence".

In June, the Understandascope, one of Frank's major projects, was launched at Federation Square. Understandascope is a centre for sustainability thinking and practice.

An ebook of some of Frank's work has recently been produced and can be downloaded at http://understandascope.org



The Swinburne Uni Alumni office has established the Frank Fisher Memorial Fund to finance a scholarship and to produce a documentary and a book. To donate, follow the links at understandascope.org or visit: https://alumni.swin.edu.au/SSLPage.aspx?pid=377
The titles of some of Frank's papers give an insight into his breadth of interests:

- Designing the sustainable mind: when good design can make sustainability problems worse
- Chronic disease self-management and the liberation inherent in understanding the social construction of chronic disease
- From values to social construct analyses in environmental science
- Melbourne's current commuting options: uneconomical choices and underperforming assets
- Free public transport
- · A systems view of altruism reveals self-interest
- Obsession with car sending us way of the DODO
- Seduced by a title: an environmental scientist reviews an ecology text
- We languish in our habits and must see life afresh
- Response ability: environment, health and everyday transcendence
- Ecoliteracy and metaresponsibility: 'steps to an ecology of mind'

Nanotech sunscreen scandal update



Louise Sales

It's been a busy few months for the nanotechnology campaign at Friends of the Earth. In July, we launched an ACCC complaint against two Australian sunscreen ingredient manufacturers – Antaria Limited and Ross Cosmetics – for marketing nano sunscreen ingredients as non-nano. This generated extensive media coverage and led one of the world's leading certifiers of organic and natural cosmetics – Ecocert – to suspend its certification of ZinClear IM.

In August we also lodged an ASX complaint against Antaria. We claim that by failing to notify the ASX of evidence that its ZinClear IM product is a nanomaterial, and that the product's Ecocert accreditation has been suspended, the company is in violation of stock market rules. We are still awaiting the ACCC and ASX rulings and will keep *Chain Reaction* readers posted!

The revelation that Antaria and Ross have been marketing nano sunscreen ingredients as non-nano has left us in a tricky position, as we can no longer rely on statements from companies to determine whether or not products contain nanomaterials. We are still in the process of researching which brands we can recommend to the public and are hoping to be able to provide some more accurate information in time for this summer.

Take Action

If nano-ingredients in sunscreen were properly labelled and safety tested, we wouldn't be in this mess! Please email the Parliamentary Secretary for Health Catherine King MP and demand the proper regulation of nano-ingredients in sunscreen. You can email her via our website: http://nano.foe.org.au

The impact of nanotechnology on developing countries

In the past few months the impact of nanotechnology on the developing world has also come under scrutiny, with GRET (a non-profit association of professionals for fair development) releasing a report on the topic. This concluded that "conditions are not yet in place to ensure that developing countries, and in particular Least Developed Countries (LDCs), benefit fairly and without risk from the potential progress in nanotechnology."

Worldwide, funding of public research into nanotechnologies has risen from one billion dollars in 2000 to nearly ten billion in 2011. Most industrialised countries have set up national nanotechnology research programs and public investment in nanotechnology is estimated to have risen by 20% over the past three years. Yet despite all the rhetoric about nanotechnology being needed to purify water in the developing world and to help meet our global energy needs, only a tiny percentage of research is focused on finding solutions to agricultural, sanitary or energy problems in developing countries.

A host of nanotechnology based products of dubious merit – including odour controlling undies, anti-wrinkle creams and hygienic pet beds – have been produced for markets in the developed countries. However, applications that could potentially meet needs in developing countries – such as nanomembranes for water purification – are still rare or being developed.

Moreover, in developing countries with weak national regulations, this increases the risk that uncontrolled, uncoordinated nanotechnology development could have a negative impact – particularly in countries with manufacturing based economies such as China.

More evidence of harm

In the past few months a number of studies have emerged demonstrating the potential for nanomaterials to cause harm to human health and the environment. New research published in *Toxicology Sciences* this August found that inhaling tiny fibres made by the nanotechnology industry could cause similar health problems to asbestos. Some are similar in shape to asbestos fibres, which have caused lung cancers such as mesothelioma. Nanofibres are used in a range of products, ranging from aeroplane wings to tennis rackets and golf clubs.

Whilst the use of nanomaterials is increasing, their environmental impact is still poorly understood. A study published in *Environmental Toxicology and Chemistry* in September found that plastic nanoparticles in seawater can have an adverse effect on sea organisms. Mussels exposed to such particles eat less, and thus grow less well.

A further study published in *PNAS* showed that zinc oxide and cerium oxide nanoparticles adversely affect soybean growth and soil fertility. The nanoparticles harmed bacteria that the plant relies on for growth. Zinc oxide is a common component of cosmetics and sunscreens and ultimately ends up as a contaminant of solid waste generated by sewage treatment. This waste is widely used as an organic fertiliser. Cerium oxide is used in some diesel fuels to improve combustion and reduce particulate emissions. The authors concluded that the build-up of manufactured nanomaterials in soils may compromise soil-based crop quality and yield.

Given the paucity of data regarding the potential harmful effects of nanomaterials, some countries are taking a justifiably precautionary approach. For example, Denmark recently announced that it would be joining France and the Netherlands in moving towards a mandatory register of nanomaterials. This will not only allow the tracking of nanomaterials through the supply chain and allow workers handling nanomaterials to adopt appropriate cautionary measures.

Meanwhile, our federal government has refused to take similar action here. A recent study commissioned by the government concluded that the feasibility of implementing a similar system here was "questionable", despite the fact that other countries are in the process of doing it.

Louise Sales is the Nanotechnology Project Coordinator at Friends of the Earth Australia. nano.foe.org.au, louise. sales@foe.org.au



What is the Active Friends Program?

The Active Friends Program is one of the best means to support current and future work of Friends of the Earth. It involves a regular monthly donation of a self-nominated amount.

Where will Active Friends donations go?

Friends of the Earth is renowned for making a little money go a long way. Because our administration costs are always kept to a bare minimum, practically all Active Friends contributions directly support campaign work, publications and community engagement. Active Friends donations support

- a moratorium on coal and coal seam gas mining through our 'Quit Coal' campaign
- renewable energy through our 'yes2renewables' campaign
 - our work to safeguard water for the rivers, wetlands and forests of over 14% of Australia's landscapes through the 'ourdarlingmurray.org' campaign
 - FoE's Anti Nuclear & Clean Energy (ACE) campaign, which continues to highlight the dangers of nuclear power and uranium mining and to promote safe alternatives.

Why is the Active Friends Program vital to FoE?

To remain a radical and credible voice for social and environmental justice, we need a stable financial base.

How can you join the Active Friends Program?

To join the Active Friends program, please see the 'Support Friends of the Earth' page in this edition of Chain Reaction, or go to www.foe.org.au and click on the donate button... All Active Friends donations are fully tax deductible.



Australia's nanotechnology public engagement ineffective and biased

Kristen Lyons and James Whelan

Nanotechnologies are likely to radically transform a range of industries and introduce broad scale social, environmental, health and other impacts. The general public has a right to access information about these impacts and issues, and to provide input into shaping nanotechnology policy and practice.

Indeed, public input into science and technology policy and decision-making is now widely recognised as part and parcel of a healthy and functioning democracy (Tucker, 2011). Deliberative processes – that engage the public, along with governments and corporations – provide an opportunity to guide research, development, commercialisation and regulation of nanotechnologies in ways that are broadly publicly acceptable.

In recent years, and as part of the deliberative turn in western democracies, there has been a groundswell in nano-public engagement activities (see for example Royal Society and Royal Academy of Engineering, 2004; Macnaghten et al. 2005; Powell and Colin, 2008). Governments around the world, including in the United Kingdom, the United States, Japan and Australia, have implemented a range of nano-public engagement activities, including panels, citizen juries, citizen schools, nanodialogues, nano cafés and formal inquiries. Yet despite the growing enthusiasm for these activities from all sides of politics and across science communities - we agree with the recent call by Craig Cormick from the Department of Innovation, Industry, Science and Research (2012) that they have had little impact in shaping policy. Rather, public engagement frequently appears as a set of tools to manage public dissent, thereby clearing the path for unfettered nano-industry expansion. This is evident in Australia's public engagement activities, which Cormick has been commissioned to oversee on behalf of the Australian Government for some years.

The Australian Government has committed A\$9.4 million between 2010 and 2014 for public engagement as part of its National Enabling Technologies Strategy (NETS) (DISSR, 2010). Our analysis of a broad sample of NETS public engagement activities reveal a number of constraints that limit both the scope and effectiveness of these activities, and point to a strong pro-industry bias. In recognition of the seriousness of this bias, in 2011 the NETS Advisory Council requested an independent review of public engagement materials produced and funded as part of the NETS.

Our analysis reveals many factors that demonstrate ineffectiveness and bias in the NETS' public engagement activities.

Firstly, NETS public engagement activities have excluded certain key stakeholders, most notably those who expressed strong opposition to the policy and strategic directions proposed by the Government. This is despite a stated commitment to include a diversity of stakeholders in engagement activities so as to ensure broad representation (DISSR, 2009).

This was plainly evident during the Federal Government's Multi-stakeholder Engagement Workshop series – the cornerstone program implemented to devise a national community engagement framework. The exclusion of dissenting voices has elicited strong responses from civil society organisations, academics and union groups in Australia. The National Toxics Network, for example, labelled NETS community engagement as "ad hoc and inequitable", and Greenpeace Australia Pacific described engagement activities as "inadequate to present the Government with the full spectrum of public interest group views at this critical time." Some Federal Government representatives also acknowledged these concerns.

Secondly, some engagement activities have also been managed so as to champion the advance of nanoapplications and the nano-industries. Our analysis of all web-based materials published by the Federal Government on their 'TechNYou' website (the Federal Government's web-based Information and Outreach Service), for example, demonstrated the privileging of positive claims relating to environmental, health and manufacturing benefits, the use of positive and upbeat language, and the understatement and marginalisation of criticisms and concerns, and undermining of critical stakeholders (see for instance Major, 2009; 2010). At the same time, consumer concerns were de-emphasised, with one blog entry on the topic of nano-food claiming: "I think you will find that people's suspicions (about nano-food) disappear, except for the conspiracy theorists". Such statements demonstrate the moderator's disconnect with national attitudinal surveys, which consistently demonstrate Australians' growing opposition to nano food production and processing applications, as well as the broadly accepted mandate that consumers have a right to know what they are eating (MARS, 2009; 2011).

These web-based engagement activities demonstrate a 'deficit approach'; whereby engagement is utilised to educate the public so as to allay their concerns, thereby assisting to build broad public support and acceptance for new technologies. This constrains Australians from debating topics of substantial significance, including

the diversity of social, ethical, environmental and other challenges associated with the expanding nano-industries.

Thirdly, the Australia Government has been inconsistent and unclear about the purpose and likely outcomes of engagement activities. This has left some participants frustrated and aggrieved about what might be expected as a result of time invested in engagement activities. Participants at NETS workshops, for example, have made repeated called for the intentions of NETS nano-engagement activities to be made explicit.

Despite these repeated calls for transparency, the links – if any – between engagement and policy remain shrouded in secrecy and subterfuge. The outcome of this is to place the credibility of the future nano industries at risk; by leaving nano research, development and commercialisation to sail adrift from community members' hopes and aspirations, as well as fears and concerns, related to new technologies.

Cormick (2012) claims "there is no simple best way to engage with the public ... other than to engage in as many different ways, and with as many different types of audiences, as possible". Yet this random scattergun approach has delivered ineffective and biased processes, which have failed to shape policy outcomes.

Instead of simply investing broadly in engagement activities, there are internationally recognised best practice principles for public engagement that could inform strategic decision-making in nano public engagement and policymaking. These principles include:

- Engagement activities that are open and inclusive of a diverse range of interests and perspectives;
- Engagement occurring 'upstream', while trajectories for the development of nanotechnologies remain negotiable, and on topics of substantial significance;
- Engagement activities being transparently linked to policy and regulation;
- Engagement activities being independently and continuously evaluated, and conducted with impartial and expert facilitation, and
- Engagement activities being adequately funded and resourced across the entire policy cycle (see Lyons and Whelan 2010 for a detailed literature review).

Adoption of best practice principles may assist the Australian Government (and Governments in other parts of the world) to reconcile the tension between stated commitments to nano public engagement to develop policies and determine development trajectories (Australian Government, 2009), and engagement practices that fall well short of these ideals. The integration of these principles may enable engagement activities to become part of democratic policy making processes, rather than ineffective tools that assist in the rollout of new technologies.

The current critique of nano public engagement activities in Australia – including concerns raised by civil society, academics and the NETS own Advisory Council – point to the urgent need to re-think contemporary engagement approaches. Adoption of best practice principles is a good start.

Dr Kristen Lyons is Senior Lecturer in the School of Social Science, University of Queensland. Dr James Whelan is a research fellow with the Centre for Policy Development and Director of the Change Agency.



Friends of the Earth action during actor David Hasselhoff's visit to Australia.

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Shapeshifting stories and singing sock-puppets:

inside the Government's sunscreen nano-wars



Katherine Wilson

This is a story of an award-winning author who used his storytelling skills in his public servant day-job. It's the story behind Australia's nano-sunscreen wars. It's about a smear-campaign – but not the slip-slop-slap type – dressed up as government research. It involves Freedom of Information (FOI) documents that show a community group was a direct target of this campaign.

The story starts with two alarming news releases, dated 8 and 9 February 2012. One is headed: "Australians risking skin cancer to avoid nanoparticles". The other opens: "Australians are putting themselves at increased risk of potentially deadly skin cancers" because of fears about nano particles.

The releases, issued from the federal Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE), cite as evidence a government survey that one release says "showed that about 17% of people in Australia were so worried about the issue, they would rather risk skin cancer by going without sunscreen than use a product containing nanoparticles." The other release quotes a one-in-four figure. The releases get uncritically reported, re-reported, cited and distorted in countless news media, medical newsletters and science journals worldwide.

But they're not true. "I don't know where the 17 per cent comes from," said Swinburne's research design expert Dr Vivienne Waller, who analysed DIISRTE's raw and filtered survey data, "but this is absolutely not a conclusion you could draw from the survey data. The questions from which this figure *appears* to be obtained are not about behaviour, but about perception of risk."

Worse, responses to the survey might *contradict* the news releases: a majority of respondents indicated they used other methods of sun-protection including avoiding sun exposure altogether and wearing long clothing and hats. "And there is nothing in the responses to these questions that indicate people would rather risk skin cancer by going without sunscreen as the media release states," said Dr Waller.

"I can only conclude that it was written by someone who has little idea on how to correctly interpret survey data and perhaps had a story which they wanted to tell anyway."

Craig Cormick

Why would DIISRTE issue such alarmist claims, and where did this online survey originate? This is where the story gets tangled in singing sock-puppets, scare campaigns and FOI documents.

The author of the media releases and the survey questions is Craig Cormick. Cormick holds a PhD in Creative Communication. According to his website, he's an award-winning fiction writer and science communicator. One of his books, *A Funny Thing Happened at*

27,000 feet..., won a Queensland Premier's Literary Award. His job is essentially PR: he's Manager of Public Awareness and Community Engagement for the National Enabling Technologies Strategy (NETS), a two-year-old outfit which supports development of the nanotech and biotech sectors and advises on policy. NETS operates under DIISRTE.

Though geared toward industry interests, NETS is publicly-funded, and part of its charter is "providing industry and the community with balanced and factual information", produced in consultation with "key stakeholders" including public-interest NGOs.

In his job, Cormick fended off complaints alleging this was a sham. Early in NETS' development, twelve NGOs – including the Consumer Federation of Australia, the Consumer Health Forum, the Public Health Association of Australia, the Public Interest Advocacy Centre and the ACTU – expressed concern about "bias and failure to deal professionally and genuinely with NGOs in relation to nanotechnology", according to The Australia Institute's Kerrie Tucker.

In a conference on government-public engagement, The Australia Institute's Executive Director Richard Denniss characterised what he viewed as "partisan" and "essentially propaganda": "When governments are putting information up on websites, that information has to be accurate and complete... my favourite example of [partisan education material is] a nice little [DIISRTE-hosted] video where a woman with a sock-puppet sings a song about how exciting nanotechnology is, and how safe nanotechnology is, and how only idiots think nanotechnology could have any harmful effects. ... Having a sock-puppet trivialising potential risks is not very accurate and certainly not complete."

The sock-puppet video, titled *Nano nano, what a wonderful surprise,* was but one of a suite of aggressively partisan education materials hosted on DIISRTE's 'technyou' education site (technyou.edu.au/fun-stuff). As many news outlets have reported, scientific opinion is divided on whether novel nano-particles permitted in the manufacture of some sunscreens pose health or environmental risks. Australian authorities say current weight-of-evidence points to safety, and they cite many research papers that appear to support this.

Public-interest NGO scientists say these authorities overlook gaps in the data, ignore recent research or favour research that has bias toward industry. Friends of the Earth's Dr Gregory Crocetti says there is "inherent conflict of interest [in the Therapeutic Goods Administration]. That is, the TGA is 100 per cent industry funded."

Stonewalling

This is a standard scenario with contested science in the public sphere: each side tends to accuse the other of privileging research that supports a particular agenda. So when the 12 public-interest stakeholders asked NETS to promote a more balanced, less-partisan approach taken by some European agencies, things degraded into *Yes Minister* farce.

Frustrated with what they saw as a campaign of exclusion, eight of the NGOs wrote to (then) Minister Kim Carr, complaining about NETS' "failure to take seriously NGO concerns about the lack of balance, accuracy and professionalism in its public engagement activities and communication materials."

The minister didn't respond. And there was alleged stonewalling from Cormick's office. But the blame couldn't be laid solely with Cormick: the problem remains systemic. According to some key stakeholders, after protracted delays and obfuscation, NETS referred the complaints to its *non-existent* Ministerial Stakeholder Advisory Council (SAC) in 2010.

Happily, the SAC was finally formed in 2011, but the NETS office, against whom the complaints were being made, selected the materials and events to be reviewed by the panel. "The materials being provided to the review panel were to be chosen by staff within the department responsible for NETS," said SAC member, the VTHC's Renata Musolino, who represents the ACTU on several nanotech forums.



But this is all she or any others could say: SAC members could not take their mounting grievances outside the Department, as they were bound by confidentiality agreements. To add insult, some were shocked at the eleventh hour to learn of Cormick's survey and subsequent misleading media releases. "FOI documents show he had not consulted the SAC about this secret survey," said Louise Sales, who represents one of the key stakeholders, Friends of the Earth (FoE).

The SAC was routinely consulted for other NETS publicattitude surveys. Why not this one? Cormick justified his non-consultation later in an email by saying he wanted to keep the survey "independent". But industry players *bad been* consulted in the media releases. *Why?* What could be gained from making alarmist links between nano-precaution and "deadly skin cancers"?

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FOI request

FoE had its suspicions, and lodged an FOI request. The fruits of these requests aren't bound by gag clauses. And the hundreds of released pages of emails and correspondence tell a story of what can be seen as a scare-campaign dressed up as government research. Some correspondence is missing and others are heavily redacted, but the documents show clearly that Cormick and two US colleagues linked nanotech fears to skin cancer well before he drafted the survey questions and committed public funds to the research. It is explicit from the first email onwards that FoE was the direct target of this project.

In the first email, Cormick's correspondent attaches an article "debunking the rhetoric employed by FoE". By December, Cormick urges speed on the project, because "Friends of the Earth are ramping up their nano-sunscreen messages, we would need to get something decided on sooner rather than later."

In a 13 December email, a colleague advises him that FoE has produced a nano-free sunscreen guide, and in a Ministerial briefing in January, Cormick explains: "Friends of the Earth has been running a campaign against the use of nanoparticles in sunscreen for several years, increasing its efforts during the summer months." He writes that the purpose of the survey is to investigate "whether scare stories about nanosunscreens lead some people using less sunscreens and thus putting themselves at increased risks of melanomas ... the findings of this study could be provocative amongst NGOs if it demonstrates that campaigns against nanosunscreen are putting the public at risk."

Under a soft light, Cormick *et al's* early reasoning, coded in Newspeak, might be seen as a quest to show whether people fearful of nano particles are less likely to use sunscreen. A harsher-light interpretation, informed by evidence from previous biotech sector campaigns, could be summarised as: if we produce evidence that people who fear nanoparticles are risking deadly skin cancer, we can paint those fearmongering NGOs as irresponsible. Particularly FoE's nano-safety campaign. FoE is mentioned repeatedly as a target of Cormick *et al's* project in initial discussions and later ministerial briefings. One of the two US colleagues who corresponded with Cormick is known for his published stoushes with FoE.

The NGO-fearmongering-equals-deadly-consequences tactic has been used before. The biotech sector, in which Cormick has worked as a PR operative for many years (and which NETS still promotes), routinely portrays groups who campaign against GM industrial products as anti-science fearmongers who are starving third-world children, ruining economic prosperity and depriving farmers of their livelihoods.

And when the *nano-fearmongering-equals-deadly-cancer* campaign first hatched, other bodies quickly got onmessage. Last month The Australian reported: "Terry Slevin, chairman of the Cancer Council's National Skin Cancer Committee, said Friends of the Earth was driving a "fear campaign" that risked scaring people away from sunscreens that were known to prevent cancer deaths."

Slevin, too, is in the FOI documents. In email exchanges, Ministerial SAC members ask Cormick why he hadn't consulted them about the project during the last teleconference on 13 December. He responds that

"the project didn't exist yet". The documents show the project was hatched in conversations before 11 November.

When Cormick commissions a company to put the survey online, the company advises him that preliminary responses show "while people believe it's more risky to use sunscreens with nanoparticles, they would still rather use them than nothing at all." He nonetheless stays on-message in his draft media releases.

When he first commissions the survey, he requests beefedup sampling of male adolescents who, according to an attached article in the files, are the least-likely users of sunscreen. He later changes his mind, but Cormick is so eager to release his project in time to present it at an international nanotech conference that the final broad sampling method is changed late into the data collection, in order to speedily fulfill a sample quota of 1000. An Estimates hearing is later told the sampling was "random" and "representative".

In the documents, Cormick applies to have the media release issued from Minister Greg Combet's office, but the office rejects it as not "appropriate". It is issued instead by NETS in consultation with other public bodies. Cormick's email 'to' and 'cc' fields suggest he drafted them in consultation with Ego Pharmaceuticals (producers of sunscreens). There is explicit consultation with the Australian Self Medication Industry (which represents non-prescription pharmacy products) – but the FOI documents released about exchanges with industry bodies are heavily redacted and incomplete. FoE has requested the complete exchange.

In Cormick's email exchanges and later ministerial briefings, there are varying accounts of how the project originated. In some exchanges the survey is described as a joint research project with Cormick's US colleagues. The Economics Legislation Committee is later told the survey arose from Cancer Council concerns. The departmental responses to questions by Senator Di Natale state that the project was devised to "assess the impacts of risk messages regarding nanotechnology and sunscreens on the public" and useful "for analysis to show what forms of sun screen protection respondents with concerns regarding nanoparticle risk may use." The latter was not apparent in the releases or filtered data: conversely, after the survey, Cormick emails to his US colleague: "I think we've missed one issue, that is, if people have heard about nano sunscreen and don't use any sunscreen as a result (13% of those) - do they turn to another form of skin protection instead?"

All this and more can found in the FOI documents. No doubt NETS and Cormick, a master communicator backed by a big public budget, will have the opportunity for a considered riposte to this story.

A referenced version of this article was published by New Matilda and is posted at: nano.foe.org.au/nanosunscreen-wars

More information:

nano.foe.org.au

Anti-wind farm laws are bad politics for Vic Premier

Leigh Ewbank

Victoria's Premier Ted Baillieu is in trouble. Since coming to office, he has made a slew of unpopular decisions that have caused his public support to evaporate. Baillieu's decision to scrap TAFE funding is perhaps the highest profile of these missteps. His anti-wind energy laws are less well known but are a damaging sleeper issue.

The innocuous-sounding VC82 legislative amendments effectively ban wind farms from operating in large swathes of the state. They establishe arbitrary 'no-go zones' and allow just one objector to stop any wind turbine within 2 kms, making Victoria the world's biggest NIMBY (Not In My Back Yard).

Our state's once lucrative pipeline of wind farm projects has been blocked and capital is fleeing interstate. Over the past 12 months, just one development application has been lodged with the department of planning.

Traditionally, the Liberal Party was seen as the party of business and an ally of science and progress. In recent years, it has become captive to a Tea Party-style culture of anti-wind energy and anti-climate science extremism.

If the Premier was riding high in the polls then he could perhaps prosecute the irrational agenda of the anti-wind lobby. But he does not have political capital to spare on such ideological adventurism.

Unlike previous premiers, Kennett, Bracks and Brumby, who consolidated support during their first 18 months in office, Baillieu's electoral support has fallen – and quite dramatically. As columnist Bruce Guthrie noted in the *Sydney Morning Herald*, "voter satisfaction [with Baillieu] has fallen from a healthy 52 per cent midway through last year to a stress-inducing 36 per cent less than 12 months later."

Over the next two years the Coalition and Labor party will battle for supremacy on economic management and jobs – issues that are typically the top priorities for voters. The fact that his government's anti-wind energy laws are bad for both must be causing Premier Baillieu sleepless nights.

To date, Baillieu's anti-wind farm planning laws have cost around \$887 million in lost or stalled investment; 650 direct jobs lost or stalled in construction; 54 on-going jobs in management of wind farms; and 1408 indirectly associated (flow-on) jobs. The flood of investment that has flowed to the South Australian wind energy sector since the introduction of VC82 confirms the adverse economic consequences of the policy.

Seeking to galvanise the Coalition's electoral support in the lead up to the 2010 state election, Baillieu adopted a clear anti-wind energy position in his election platform. The political calculation was that anti-wind campaign groups the Waubra Foundation and Landscape Guardians would help deliver votes to the Coalition.

When you look at the real electoral impact, it's apparent that anti-wind energy lobby is all sizzle and no sausage. The swing against Labor in the seat of Rippon – which covers Victoria's 'wind belt' and was the target area of an organised anti-wind energy campaign – was less than the state-wide trend.

Anti-wind campaigners get excessive media coverage, but their stance is unscientific and electorally unpopular. Polls here, in America and in the UK show that wind energy remains popular, despite anti-wind hysteria. Polls commissioned by the Climate Institute and the Clean Energy Council register majority support for wind energy at 75% and greater. In the Clean Energy Council study, 60% of those polled viewed restrictions on wind farms as a missed opportunity to support the manufacturing sector – a finding that reveals voters see a clear link between the wind energy sector and manufacturing jobs.

A credible CSIRO study on the perceptions of wind energy in regional areas concluded: "There is strong community support for the development of wind farms, including support from rural residents who do not seek media attention or political engagement to express their views."

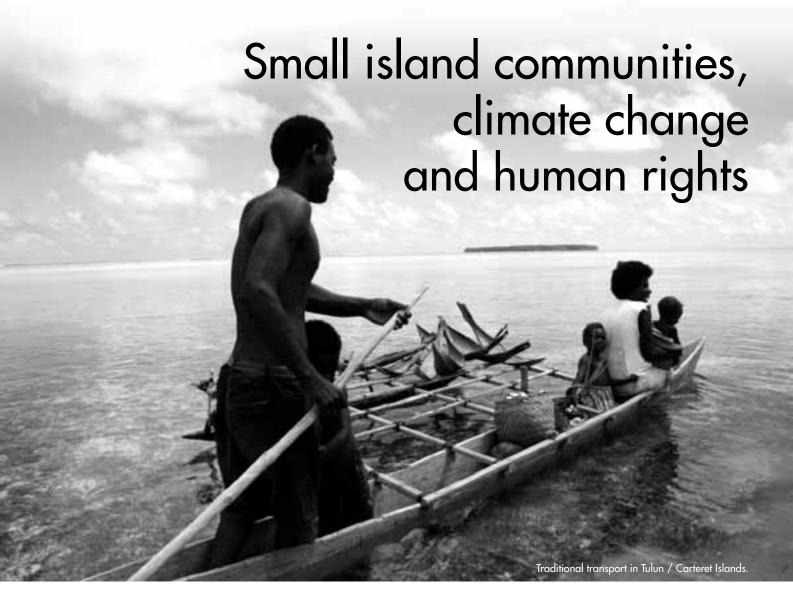
The anti-wind energy stance has the potential to harm the Baillieu government another way. The cost of electricity has quickly risen to the top of the issue agenda. Energy market observers are well aware of dampening effect wind energy has on wholesale electricity prices. The electricity now produced by South Australia's wind farms prevents expensive fossil fuel generators dispatching electricity to the grid. Public discontent with the Baillieu government will grow as more people become aware of wind energy's ability to keep a lid on electricity price rises.

Premier Baillieu is in a tight spot but has a way out. The VC82 laws are executive decisions and can be repealed as quickly as they were introduced. A first step could be to exempt community-owned wind companies from the NIMBY regulations.

With thousands of jobs and billions in investment at stake, the party that supports restoring sensible planning guidelines for wind farms will have an electoral edge in 2014.

Leigh Ewbank is Friends of the Earth's Yes To Renewables spokesperson.

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Wendy Flannery

"We Can't Walk on Water" – this was the slogan on a poster carried by a small girl at a 2009 event connected to the annual 350.org mass public actions. The event saw the first wave of resettled families from Tulun / the Carteret Islands in Papua New Guinea gather with their new local community in Tinputz, Bougainville. The slogan dramatically illustrates the growing number of small island communities who already experience the catastrophic impact of carbon pollution and climate change on their way of life. Multiple and interacting climate dynamics, including sea level rise, storm surges, more extreme weather events, ocean warming and ocean acidification, play a part in creating forced climate migrants.

Interactions with communities having to confront the radical undermining of their whole way of life because of climate-change-related forces raises the question of whether any of the multiple human rights instruments developed under the United Nations auspices are now adequate to cater to what these communities feel to be the abrogation of their fundamental rights.

Even on the basis of the original 1948 UN Declaration, the impacts of climate strike a chord. Consider for example: the right not to be subjected to arbitrary exile (Article 9); the right to protection from arbitrary deprivation of property (Article 17.2); the right to the economic, social and cultural rights indispensable for human dignity (Article 22); the right to an adequate standard of living and to

livelihood security in the event of circumstances beyond a person's control (Article 25). And finally: "Nothing in this Declaration may be interpreted as implying for any state, group or person any right to engage in any activity aimed at the destruction of any of the rights and freedoms set forth herein" (Article 30). While this destruction was clearly not the aim of the historically highly carbon polluting countries, including Australia, it is now impossible to deny that it is in fact the outcome.

For more than 10 years, Friends of the Earth Australia (FoEA) has been involved in a climate justice campaign, with a strong focus on research, education and advocacy related to the impact of climate change on vulnerable communities, especially in the Pacific Islands region. As well as facilitating speaking tours to Australia by representatives of affected Pacific communities, the campaign included the publication in 2005 of *A Citizen's Guide to Climate Refugees*, revised and reissued in 2007, and a more extensive analysis of the issues in *Climate Justice: A Fair Share of the Atmosphere* in 2006.

It has been the ongoing relationship with Pacific Island climate change advocates that has led the small FoE Climate Frontlines group directly involved in the Pacific-focused dimension of the Climate Justice campaign to shift away from the designation "climate refugees". While this terminology is still widely used in many research and advocacy circles, by affected communities in other parts of

the world and within parts of the UN system itself, Pacific advocates find it unacceptable.

The reasons for this are many, including awareness of Australian public attitudes and government policies towards asylum seekers and refugees since the early 2000s. Of more importance, however, is the determination to have their circumstances recognised as a distinct complex of human rights issues, different from those of people fleeing persecution and whose rights were enshrined in the 1951 Refugee Convention. In its 2009 Moana Declaration, the Pacific Conference of Churches adopted the language of "forced climate migrants" to refer to people facing climate change-related displacement and resettlement. This now seems to be more acceptable terminology, at least in the Pacific.

Among the actions called for in the declaration was the development of "the framework for a new Convention or Protocol on Resettlement to cater for the specific and unique situation of persons, communities and states affected by climatic induced catastrophes". The declaration also called for "immediate measures to identify available land and other appropriate resources for the purposes of relocating and resettling all forced climate migrants, both those displaced internally as well as those likely to seek resettlement in other countries". These calls were reiterated in later statements and subsequent church conferences.

The case of Tulun / the Carteret Islands

The Tulun / Carteret Islands case is significant for understanding some of the fundamental issues in a rights-based approach to climate change-related displacement and resettlement. First and foremost, it illustrates the particular challenges faced by atoll-based communities. Their unique geophysical and ecological characteristics make these communities both capable of sustaining vibrant and rich culture-specific life ways and particularly vulnerable to the impacts of global carbon pollution and climate change. The Carterets are a scattering of low-lying coral atolls in a horseshoe shape, with a maximum elevation of 1.5 metres above sea level and a population of around 2500. It has been estimated that by 2015, and certainly by 2020, Tulun will be largely uninhabitable.

Recognition of the precarious circumstances of the islanders led the Papua New Guinean government, towards the end of 2005, to authorise their gradual evacuation to Bougainville. It took a group of Carteret chiefs to activate the process. They established an organisation called Tulele Peisa ("Sailing the Waves on Our Own") to plan and implement the gradual resettlement of a significant proportion of their population, and recruited Ursula Rakova as its director. This resettlement program was only possible because of the donation of land belonging to the local Catholic Church in four different locations on Bougainville, previously used as income-generating cocoa plantations. The current phase of the program, begun in 2007 in Tinputz, involves building houses for 10 families, the establishment of food gardens and setting up primary education facilities.

To date, almost all the funding has come from overseas non-governmental development and church-based agencies in Europe, Australia and New Zealand, largely through the persistent efforts of the program's director. The only governmental support has been via the Finnish Embassy in Canberra. No funds from a grant designated by the Papua New Guinea government in 2007 for resettlement purposes under the auspices of the Autonomous Bougainville Government have been made available to Tulele Peisa as yet. The regeneration of the cocoa plantation on the Tinputz site and links with a fair trade international marketing association have been initiated to provide an income source for the long-term sustainability of services for the resettled community. A poultry raising project has a similar goal.

One of the biggest challenges of the resettlement program has been to build relationships with the surrounding local communities, where systems of customary land rights still prevail and when the whole province is still recovering from the impacts of a vicious and protracted civil war. Though the resettlement site is on land owned by the Catholic Church, Tulele Peisa has felt obliged to establish a relationship with the traditional landowners in accordance with customary procedures. As cases in other parts of Papua New Guinea attest, however, new population pressures and perceptions of economic interest can mean that such relationships don't necessarily guarantee secure ownership in perpetuity.

As one way of building good relationships, Tulele Peisa plans to construct additional classrooms for the existing primary school, as well as employing local labour for construction and plantation work. An underlying advantage is that the Tulun people migrated several generations ago from Buka Island, the northern of the two main island of Bougainville autonomous province. The atoll-based populations to the east of the Carterets – the Taku'u / Mortlock Islands, the Nukumanu / Tasman Islands and the Nuguria / Fead Islands – suffering a similar climate-change-related fate, have no traditional ethnic ties to Bougainville and, for this reason, face a particularly uncertain resettlement future.

Addressing human rights issues

In the case of the Tulun / Carteret Islands people, the availability of the option, at least in the immediate future, of resettlement on Bougainville, or "internal migration", cushions the trauma of forced displacement. Similar internal relocations have taken place elsewhere in the Pacific, especially from small, outlying island communities in, for example, Solomon Islands and Vanuatu, and this kind of scenario is likely to increase in frequency around the Pacific as climate change impacts become more intense and destroy the possibility of a sustainable livelihood.

An even more challenging case is that of the sovereign state of Tuvalu, composed entirely of atolls, and increasingly subjected to the same climate-change-related impacts as the Carterets. Displacement of their people requires the option of resettlement in another sovereign jurisdiction. In the Pacific, Kiribati and the Marshall Islands are in similar situations. As well, with the eventual evacuation of entire national populations as a real prospect, these cases raise bigger questions of ongoing sovereign rights over land and ocean zones once they are uninhabitable on a permanent basis.

Law faculties of a number of universities have begun to address the human rights dimensions of climate changerelated displacement and there have already been attempts to draft international legal instruments with this in mind. These include the Draft convention on the international

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status of environmentally-displaced persons, connected to the Law Faculty of the University of Limoges, with involvement of Friends of the Earth France; and The Hodgkinson Group's draft convention to address of the rights of persons displaced by climate change with a view to establishing an international regime for the status and treatment of such persons. While it is encouraging to see such efforts, the sober reality is that a significant timeframe is required for such conventions to be agreed, adopted, and then implemented at the necessary political levels.

Australia's responsibility

Attempts by the government of Tuvalu in the early 2000s to negotiate an appropriate resettlement option in Australia, in the longer-term interest of their people's inevitable, eventual need for a new place to call home, were a total failure. A new opening seemed possible when, on 5 January 2006, the then Federal Labor MP Bob Sercombe and current MP Anthony Albanese issued *Our Drowning Neighbours, Labor's Policy Discussion Paper on Climate Change in the Pacific*, with the goal of generating a more proactive, strategic approach.

The paper addressed a wide range of concerns related to climate change in the Pacific, including the improvement of research and monitoring facilities, assistance for adaptation and emergency efforts, and assistance with "intra-country evacuations". It also recognised that special measures needed to be taken to address the situation of countries like Tuvalu:

Labor believes that Australia should, as part of an international coalition, do its fair share to accept climate change refugees as part of our humanitarian immigration program. Yet Australia needs to work with our Pacific neighbours to prepare for such contingency now... Firstly, Australia should help to develop a coalition of Pacific Rim countries willing to accept climate change refugees. Secondly, Australia should be working at the UN to ensure appropriate recognition of climate change refugees in existing conventions, or through the establishment of a new convention on climate change refugees.

When Labor came into power in 2007, it signed on to the UN Framework Convention on Climate Change's Kyoto Protocol, as a signal of a commitment to global effects to mitigate carbon pollution. Its focus since then in relation to climate change in the Pacific has been on research and technology transfer related to adaptation, disaster preparedness, and financial support in view of current and future potential impacts.

In *Engaging our Pacific Neighbours on Climate Change*, the document prepared by the Australian Government in preparation for the annual Pacific Islands Forum meeting, hosted by Australia in Cairns in 2009, only one page is devoted to issues of displacement, with a strong emphasis on "the possibility" of a need for permanent migration sometime in the future, and on the fact that climate change is often one of a complex of factors driving migration.

This approach is clearly inadequate, especially in view of the latest scientific evidence and predictions about climate change scenarios. *Our Drowning Neighbours* provides a well-researched overview of the Pacific Islands situation in the face of climate change and a framework for meaningful, strategic measures to prepare now for climate change-related displacement and resettlement. It could serve as the impetus for an urgently needed cross-sectoral task force, organised and funded by Australia, including representation of governments, scientific and human rights experts, spokespeople from already affected communities, civil society advocates and funding agencies. The hoped-for outcome would be the development of decent, dignified and culturally-sensitive model like that of Tulele Peisa, fully incorporating Australia's responsibility to its neighbours.



Wendy Flannery convenes the Climate Frontlines collective of Friends of the Earth Brisbane. Her experience includes more than 20 years involvement in education and development work in the Pacific Islands region, and advocacy on Pacific climate change concerns within the United Nations system.

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More information:

FoE foe.org.au/climate-justice

FoE Climate Frontlines group climatefrontlines.org

A Citizen's Guide to Climate Refugees, foe.org.au/climate-justice-publications-policy

Climate Justice: A Fair Share of the Atmosphere foe.org.au/climate-justice-publications-policy

Pacific Conference of Churches pcc.org.fj

Our Drowning Neighbours, Labor's Policy Discussion Paper on Climate Change in the Pacific, 2006, bobsercombe.id.au/uploads/ OurDrowningNeighbours.pdf

Tulele Peisa ("Sailing the Waves on Our Own") tulelepeisa.org/favicon.ico

Nuclear South Wales? Premier's atomic ambitions face fierce opposition

Natalie Wasley

Earlier this year, in a break with a long-standing bipartisan ban, the NSW Government announced it would allow uranium exploration across the state. This reversal of a 26-year prohibition came without warning or consultation and against the backdrop of the global nuclear industry reeling from the continuing Fukushima disaster.

At the time, Premier O'Farrell cited the narrowly won ALP national conference vote allowing uranium sales to India as rationale for the policy change. Responses ranged from wariness to outright hostility. The decision is fiercely opposed by NSW Labor and the Greens. Speaking against the move in both state parliament and a recent public meeting, shadow environment minister Luke Foley captured the strength of this resistance: "As long as I am in public life I will argue against this dangerous industry".

Civil society and community groups are increasing both the light and the heat on the Premier's atomic ambitions including through the launch of a NSW Uranium Free Charter. The Charter highlights the dangers of the nuclear industry, calls on government to rule out uranium mining in NSW and has already gathered strong support from state and national trade unions, environment groups, public health and student organisations. The Charter signals the start of a new campaign to keep NSW free from uranium mining and promises to increasingly locate this controversial mineral on the state political radar. (uraniumfreensw.org.au/charter).

The state government's claim that lifting the ban on exploration does not signal an intention to allow uranium mining lacks credibility. The nuclear industry will not invest in exploration without the expectation of future mining activities. It is crucial to consider the impacts of mining now, while uranium remains where it is safest: underground.

Uranium mining causes sustained damage at and around mine sites, especially through the production of large volumes of long-lived radioactive mine tailings. These toxic mine residues retain around 80% of the original radioactivity of the ore and pose a profound management challenge. Before mining, this material is confined in a geologically stable cocoon. After mining, it is mobile in wind and water and able to be exposed to workers, nearby communities and the environment.

The track record of the Australian uranium industry is a litany of leaks, spills, breaches and accidents. A detailed independent Senate examination in 2003 found that the industry was failing to comply with its environmental obligations and called for urgent changes.

The uncomfortable and indisputable fact is that uranium is a dual-use fuel – it can be used for nuclear reactors or for nuclear weapons. Those who claim that export agreements adequately safeguard Australia's uranium ignore the deep deficiencies in the existing system and the obvious fact that, at the very least, our exports free up uranium from other countries to be used in military programs.

The glowing elephant in the room remains the growing and unresolved problem of managing the radioactive waste that is created at every stage of the nuclear chain.

The federal government has confirmed that uranium from Australia was in at least five of the six reactors at the Fukushima Dai-Ichi nuclear plant when it entered meltdown last March. Following Fukushima the international uranium market remains depressed. Existing producers have seen reduced production and profit - the controversial Ranger mine in Kakadu has posted massive losses of \$180 million in the past two years - while two advanced projects in Western Australia have recently been shelved.

The waste from any uranium mining in NSW would remain dangerous long after the O'Farrell government is gone. If the Premier truly has confidence in the case for uranium mining, he should have the political courage and respect to test these arguments via a dedicated public inquiry before approving any exploration or mining activities. Before allowing such a long lasting and toxic industry, it is prudent to examine the adequacy of NSW's regulatory regimes, the experience of uranium mining in other jurisdictions and the views of all stakeholders. The government's failure to do this at the last state election means they cannot now claim a mandate to mine.

Not only is uranium mining unwelcome – it is also unnecessary. Renewable energy is the world's fastest growing energy sector. A recent report by the federal Bureau of Resource and Energy Economics has detailed how renewables are on track to become Australia's energy source of choice as costs fall and community support blossoms. NSW is well placed to build on the state's technical and manufacturing base to become a leading producer and supplier of renewable energy. These would be real, lasting and clean jobs – many based in regional areas. Rather than promoting the unsafe uranium sector the government should building an energy future that is renewable, not radioactive.

Natalie Wasley is the national coordinator of the Beyond Nuclear Initiative. beyondnuclearinitiative.com

More information:

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Uranium's long and shameful journey to Fukushima

Dave Sweeney

The signs that all is not as it should be start gently enough: weeds appear in fields, the roadside vegetation covers signs and structures, and there are few people about. The country looks peaceful, green and sleepy. Then the radiation monitor two seats away wakes up and starts clicking.

I am on a bus heading along a narrow and winding road towards the Fukushima exclusion zone. The trip has been organised by a Japanese medical group and my fellow travellers are doctors, academics and radiation health specialists from around the world. They have come to see and hear the story behind the headlines and to bring their considerable expertise to support the continuing relief and response efforts.

Fukushima is a name known around the world since the Tokyo Electric Power Company (TEPCO) Fukushima Daiichi reactor complex was shattered and radiation scattered following the 11 March 2011 earthquake and tsunami. The world held its breath as images of emergency workers in radiation suits, bewildered and fearful locals sleeping at schools and grainy aerial footage of an increasingly vulnerable reactor filled our screens and press. While the headlines might have faded, the radiation, dislocation and complexity has not and 18 months after the meltdown this trip is part of a widespread effort in Japan to

ensure that the impacts and implications of the Fukushima nuclear disaster are neither forgotten nor repeated.

Fukushima means 'fortunate island' but the region's luck melted down alongside the reactor. Over 150,000 people cannot return to their homes and last September a United Nations special report detailed some of the massive impacts: "hundreds of billions of dollars of property damage", "serious radioactive contamination of water, agriculture, fisheries" and "grave stress and mental trauma" to a swathe of people. Lives have been utterly disrupted and altered and the Fukushima nuclear accident was and remains a profound environmental and social tragedy.

A grandmother hosts us in her new home. The cluster of caravan park style cabins on tarmac are in every way a long way from her former life in a village. Her eyes light up and her years drop when she speaks of her three grandchildren and the three great-grandchildren due later this year. But then she is asked how often she sees them and the light fades. The interpreter stumbles, the room falls silent and we all look down and feel sad and strangely ashamed.

A doctor at a nearby medical centre tells how more than 6,000 doctors, nurses and patients were re-located there from the adjacent exclusion zone. People were sleeping everywhere





he says before proudly showing the centre's new postevacuee carpet. As he talks a group of elderly people sit listlessly in chairs or lie in beds before a happy daytime TV game-show while the hill behind is criss-crossed with red tape that marks the areas of active decontamination work.

A farmer accepts that his current rice crop will be destroyed after harvest because it will be too contaminated. But he hopes next year's might be better. I sit by a pond in his rice paddy as he explains his hope that if the ducks eat enough worms and grubs they might remove the radiation. No one has the heart to contradict him. Beside his house is a cedar tree that is 1,200 years old and his ancestors had the honour of supplying rice to the Shogun feudal lords. The rice from those same fields is now radioactive.

As we drive from site to site we pass skeletal abandoned greenhouses, the fields are increasingly wild, houses are empty, sheds are rotting, vehicles have grass in the wheel arches and the landscape is dotted with contaminated soil wrapped like round bale hay in blue plastic. The smaller side roads are blocked by traffic cones and stern signage both to deter looting and because many are damaged. Police and relocated residents share patrols to keep thieves away but the biggest thief is invisible: radiation has robbed this region of much of its past, present and future.

An earnest teacher is happy that the local school has reopened but sad that while once around 250 kids used to attend, now there are 16. The local mayor picks up the theme stating, "we have very few young people or children". Radiation hits hardest at growing cells and many concerned parents have understandably moved. The old remain and the in the absence of the young the old look older.

"We have a very serious issue with the exodus of young people," says the mayor who is running an active campaign urging locals to return home while admitting "the accident isn't completed".

The manager of the local store shows us sophisticated point of sale radiation monitoring equipment and warns us against eating wild mushrooms. A doctor speaks of the lack of community confidence in the official radiation data and declares that another nuclear accident would be "the ruin of Japan". Meanwhile, the monitor on the bus keeps clicking.

Australian uranium fuelled Fukushima

Each click counts the decay of a piece of rock dug up in Australia. In October 2011, Dr Robert Floyd, directorgeneral of the Australian Safeguards and Non-Proliferation Office of the Department of Foreign Affairs and Trade admitted "that Australian obligated nuclear material was at the Fukushima Daiichi site and in each of the reactors". Australian uranium fuelled Fukushima.

Australian uranium is now radioactive fallout that is contaminating Japan and beyond and the response of the Australian government and the Australian uranium producers and their industry association has been profoundly and shamefully deficient. Prime Minister Gillard speaks of business as usual, Resources Minister Martin Ferguson talks of the "unfortunate incident" and the more bullish of the uranium miners have called the crisis a "sideshow".

This denial and failure to respond to changed circumstances is in stark contrast to the views of Aboriginal landowners from where the uranium has been sourced. Yvonne Margarula, the Mirarr senior Traditional Owner of that part of Kakadu where Energy Resources of Australia's Ranger mine is located wrote to UN Secretary General to convey her communities concerns and stated that the accident, "makes us very sad. We are all diminished by the awful events now unfolding at Fukushima".

Arabunna man Peter Watts, whose water continues to be plundered to service BHP Billiton's Olympic Dam mine in South Australia, told a Japanese audience in Yokohama earlier this year how the company "use up the water that gives life to dig up the uranium that brings death".

There can be no atomic business as usual in the shadow of Fukushima. The novelist Haruki Murakami has called Fukushima a massive nuclear disaster and stated "but this time no one dropped a bomb on us. We set the stage, we committed the crime with our own hands, we are destroying our own lands, and we are destroying our own lives. While we are the victims, we are also the perpetrators. We must fix our eyes on this fact. If we fail to do so, we will inevitably repeat the same mistake again, somewhere else."

There is intense political debate around all things nuclear in contemporary Japan and the potential restart of the countries suspended nuclear fleet has seen unprecedented political mobilisation and action in Japan. Another growing concern relates to the human, environmental and financial cost of the massive decontamination and clean-up program and the persistent stories of cut corners, substandard subcontracting and Yakuza or organised crime connections.

One of the doctors who organised our trip put the issue sharply and starkly: "The restart debate is about nuclear power plants but it is also about democracy and the future of the nation." The debate is live in Japan and a similar debate now needs to come alive in Australia – our shared and fragile planet's energy future is renewable not radioactive.

We need a genuine assessment of the costs and consequences of our uranium trade. To fail to change or to learn from this tragedy is deeply disrespectful and increases the chance of Australian uranium fuelling future nuclear accidents.

Dave Sweeney is the Nuclear Free campaigner for the Australian Conservation Foundation

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The scarcely-believable story of General Atomics / Heathgate Resources

Jim Green

The story behind the corporation that owns the Beverley uranium mine in South Australia is scarcely believable.

Heathgate Resources – a 100% owned subsidiary of General Atomics (GA) – owns and operates Beverley and has a stake in the adjacent Beverley Four Mile mine. GA CEO Neal Blue has had commercial interests in oil, Predator drones, uranium mining and nuclear reactors, cocoa, bananas and real estate. His primary political interests appear to be fighting Communism and supporting the far-right.

Radioactive spills and gas leaks at a uranium processing plant in Oklahoma led to the plants closure in 1993. The plant was owned by a GA subsidiary, Sequoyah Fuels Corporation, and processed uranium for use in reactors and for use in depleted uranium munitions. A nine-legged frog may have GA to thank for its dexterity. A government inquiry found that GA had known for years that radioactive material was leaking and that the radioactivity of water around the plant was 35,000 times higher than US laws permitted.

In 1992, a leak at the Oklahoma plant forced the evacuation of a building only two weeks after federal inspectors allowed it to resume operating. Later that year, the company announced that the plant would be closed after it had been ordered to temporarily shut down three times in the previous six years. Sequoyah Fuels Corporation President Joe Sheppard said the company could no longer afford rising costs related to regulatory demands.

The shenanigans and jiggery-pokery at the Oklahoma plant – such as the disposal of low-level radioactive waste by spraying it on company-owned grazing land, and the company's attempt to reduce the amount of property tax it paid on the grounds that radioactive contamination reduced the value of the land – are documented by the World Information Service on Energy.

GA / Heathgate in Australia

Fortune Magazine recounts one of the controversies surrounding GA / Heathgate's uranium ventures in Australia. When uranium prices increased in the midnoughties, the company was locked into long-term contracts to sell yellowcake from Beverley at earlier, lower prices. Heathgate devised plans to renegotiate its legally-binding contracts. Customers were told that production costs at Beverley were higher than expected, that production was lower than expected, and that a failure to renegotiate contracts would force Heathgate to file for bankruptcy.

However former employees said that Blue had allegedly directed Heathgate to increase its production costs.

Customers were not told that bankruptcy was unlikely since GA had agreed to continue providing Heathgate with financial assistance.

Two of Heathgate's Australian directors, Mark Chalmers and David Brunt, consulted an attorney who advised them that the plan could be considered a conspiracy to defraud. Chalmers and Brunt left the company.

Exelon, one of Heathgate's uranium customers, sued. The lawsuit was settled for about \$41 million. Because of the increased uranium price, Blue ended up well in front despite the cost of the settlement with Exelon – more than \$200 million in front by some estimates. Blue was unrepentant: "It made more sense to, in essence, just pay the fine."

Blue has even been sued by his own company. Several years ago, ConverDyn, a uranium conversion plant jointly owned by GA and Honeywell, sued Blue, Heathgate and GA in relation to allegations of a failure to meet contractual obligations to deliver certain amounts of uranium.

Federal Resources Minister Martin Ferguson declined to comment when asked about GA / Heathgate's activities in 2009.

The US Center for Responsible Politics calculated that GA spent over US\$1.5 million annually in lobbying efforts from 2005 to 2011. GA / Heathgate has repeatedly flown US politicians (and their families and aides) to Australia for high-level talks and it has paid for Labor MPs to travel to the US. The company has used the services of PR firm Hawker Britton, which includes many former Labor politicians and staffers.

Money well spent, it seems. In 2006, then SA Treasurer Kevin Foley said: "I have visited the Beverley mine and, recently, in San Diego I met Mr Neal Blue, the chairman of General Atomics – an outstanding company that is producing uranium oxide from the Beverley mine. I only hope that further deposits of uranium can be found. The sooner we can find it, dig it up and get it out of the country, the better."

Infiltration of environment groups

GA / Heathgate has employed at least one private investigator to infiltrate environment groups in Australia. The infiltrator, known as Mehmet, had previously infiltrated green groups as part of an undercover police operation before he moved into the private sector to set up his own security company, Universal Axiom. He also provided personal protection to visiting GA executives. When asked about the company's tactics, a Heathgate spokesperson said

the company was privately owned and had a policy of not responding to media questions.

People who worked at Friends of the Earth at the time – around the turn of the century – say they were highly suspicious about Mehmet from the get-go. His activities might have been laughable and pathetic except that he provided exaggerated information to police about the likely attendance at a protest at the Beverley uranium mine in May 2000. That led to an excessive police presence at the protest and police brutality against environmentalists and local Aboriginal people. An video of this brutality is posted at australianmap.net/beverley-uranium-mine. Heathgate applauded the police action.

After a 10-year legal case, 10 people were awarded a total of \$700,000 damages. Supreme Court Judge Timothy Anderson described the imprisonment of protesters in shipping crates as "degrading, humiliating and frightening" and noted that the action constituted an "affront to the civil liberties of the protestors". He added: "The conditions were oppressive, degrading and dirty, there was a lack of air, there was the smell from capsicum spray and up to 30 persons were crammed into a very small space."

Judge Anderson also strongly criticised the SA government's withdrawal from attempts to resolve the case through mediation. He said that SA government Ministers Kevin Foley and Michael Wright "acted with a high-handed and

contumelious disregard of the plaintiffs as citizens of the state with a right to protest, and with the right to be treated according to law if they did protest."

Heathgate's record at Beverley has been substandard. At least 59 spills have been documented at the mine. The company sells uranium to nuclear weapons states (all of which are in breach of their disarmament obligations under the Nuclear Non-Proliferation Treaty), to at least one country with a recent history of secret nuclear weapons research (South Korea), and to countries which refuse to ratify the Comprehensive Test Ban Treaty.

Heathgate's activities at Beverley have been extremely divisive among Adnyamathanha Traditional Owners. Some Adnyamathanha Elders have formed an Elders Group as a separate forum from the Adnyamathanha Traditional Lands Association. Enice Marsh said: "There have been many attempts over the past 10 years to try and bring greater accountability to what's happening in Native Title, and to stop the ongoing assault on our Yarta (country). Many of us have tried with very little resources, limited understanding of the legal system and environmental laws, and despite a mountain of bullying, lies and deceit from mining companies, lawyers, and self-inflated thugs in our own community who dare to call themselves 'leaders'."

Jim Green is the national nuclear campaigner with Friends of the Earth.

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Mapping Australia's nuclear sites

australianmap.net is a new online educational resource produced by Friends of the Earth which brings together information, photos and videos about more than 50 of Australia's nuclear sites including uranium mines and processing plants, the Lucas Heights research reactor, proposed reactor and dump sites, and British nuclear weapons test sites.

Bringing this information together in one site allows for observations and comparisons that would otherwise be obscured. Two such issues are discussed here – children being exposed to radiation, usually because of slack management of contaminated sites, and radioactive contamination problems which have persisted for decades.

Due to the lack of fencing, the contaminated Port Pirie Uranium Treatment Complex site was used as a playground by children for a number of years. The situation was rectified only after a six-year community campaign led by Friends of the Earth.

After mining at Rum Jungle in the NT ceased, part of the area was converted to a lake. As a crocodile-free water body in the Darwin region, the site became popular despite the radioactivity.

In November 2010, the Rum Jungle South Recreation Reserve was closed due to low-level radiation in the area. The Department of Resources advised the local council to shut down the reserve as a precautionary measure.

In 2012, damage to a security gate allowed children to enter a contaminated site near Kalgoorlie. More than 5000 tonnes of tailings from the Yeelirrie uranium deposit, near Wiluna, were buried there in the 1980s. BHP Billiton said it would improve security.

In a 1997 report, WMC admitted leaving the contaminated trial uranium mine at Yeelirrie, WA, exposed to the public with inadequate fencing and warning signs for more than 10 years. A spokesperson for WMC said a 1995 inspection revealed the problems and also admitted that the company could have known about the problems as early as 1992. WMC said there was inadequate signage warning against swimming in a dam at the site, which was found to be about 30 times above World Health Organisation radiation safety standards and admitted that people used the dam for "recreational" purposes including swimming.

Children and adults alike have been exposed to radiation from the contaminated uranium processing site at Hunters Hill in Sydney (and children are more susceptible to radiation-induced cancers due to their growing bodies).

Only in recent years has the contamination at Hunters Hill come to light after decades of deceit and obfuscation. The NSW Health Commission covered up the dangers. An internal memo in 1977 told staff to "stall and be noncommittal" when responding to queries. Residents were told there was "no logical reason" to carry out radiation or health tests even though the NSW government knew that there were compelling reasons to do so.



Rum Jungle uranium mine, NT.



Bentley and Smiler Greenwood, mining for radium at Radium Hill, SA, 1919.



Port Pirie Uranium Treatment Complex, South Australia.

A similar attitude has been displayed towards people living near the Lucas Heights research reactor. An internal 1998 federal Department of Industry, Science and Resources briefing document, obtained under Freedom of Information legislation, warns government officials: "Be careful in terms of health impacts – don't really want a detailed study done of the health of Sutherland residents."

Another incident with child safety concerns occurred in May 1997 when a radioactive source was stolen from an ANSTO promotional display at Menai High School. An ANSTO spokesperson said the source could be handled "quite safely but shouldn't be for long periods." The radioactive source was never recovered.

In the 1950s, the British-Australian nuclear cabal suppressed research demonstrating the contamination of grazing sheep and cattle with strontium-90 from nuclear bomb tests in Australia. Whistleblower Hedley Marston warned that proof of widespread contamination would be found "in the bones of children". The nuclear cabal and the Australian government initiated a testing program in 1957, but it was done in secret using stolen body parts from dead babies, still-borns and infants.

The Advertiser conspicuously failed to inform residents of Adelaide of the plume of radioactivity which contaminated the city after the bungled nuclear bomb test of 11 October 1956. The Advertiser did however run a story in 1957 titled 'Radioactive Children Are Brilliant' – a baseless theory from a British psychiatrist linking strontium-90 to 'brilliant' children.

Radioactive contamination

Unresolved radioactive contamination issues have been another recurring feature of Australia's shameful nuclear history. There have been four 'clean ups' of the Maralinga nuclear test site. The fourth was carried out in the late 1990s and it was done on the cheap. Most likely there will be a fifth clean up ... and a sixth.

The contaminated Port Pirie Uranium Treatment Complex was closed in 1962. Fifty years later, the SA government says the site is "actively monitored to provide additional information to assist with the ongoing development of management plans and potential remediation."

Hunters Hill in Sydney has been the subject of controversy in recent years due to the failure to decontaminate a former uranium processing site, and the use of the site as residential land. The site was last used for uranium processing in 1915. Nearly a century later and there is an ongoing debate over site contamination and an appropriate location to store radioactive waste arising from site remediation. The current plan is to dump the waste at Lidcombe in western Sydney.

Not one of Australia's former uranium mines has reached a stage were monitoring is no longer necessary. Rehabilitation and remediation of uranium mine sites has proven to be more expensive and more problematic than

anticipated, with extensive time periods where ongoing management and remediation are necessary. The long-term costs – financial and public health costs – are borne by the public not the mining companies.

WMC left the contaminated trial uranium mine at Yeelirrie, WA, exposed to the public with inadequate fencing and warning signs for more than 10 years.

Uranium exploration in the Wiluna region in the 1980s left a legacy of pollution and contamination. Even after a 'clean up', the site was left with rusting drums containing uranium ore, and a sign reading "Danger – low level radiation ore exposed" was found lying face down in bushes.

At Mary Kathleen in Queensland, there is ongoing seepage of saline, metal and radionuclide-rich waters from tailings, as well as low-level uptake of heavy metals and radionuclides into vegetation.

At Radium Hill in SA, maintenance of the tailings is required due to ongoing erosion.

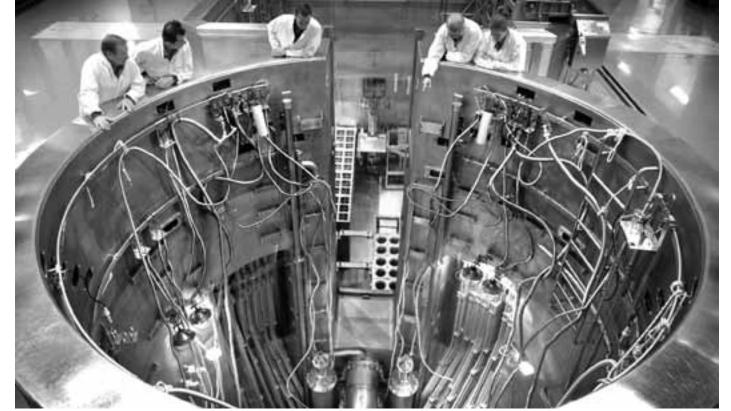
At Rum Jungle in the NT, despite extensive rehabilitation and remediation of the site, the Finniss River is still polluted with ongoing acid mine drainage.

At Nabarlek in the NT, despite rehabilitation this former mine still requires ongoing monitoring and there has been ongoing site contamination and lasting impacts on water quality.

There is much else of interest and importance at australianmap.net. Did you know that Prime Minister John Gorton's plan for a nuclear power plant at Jervis Bay in the late 1960s was driven by a secret nuclear weapons agenda? Did you know that whistleblowers (with the help of Friends of the Earth) uncovered a global uranium cartel in 1976 leading to an international controversy and fines totalling hundreds of millions of dollars? There is much else at australianmap.net that the nuclear industry would rather you didn't know about.

View australianmap.net online or download the PDF file which contains all entries. Community groups are welcome to put the map on their own websites – for more information visit australianmap.net/embed. An A2 poster is also being produced and distributed to community groups at cost price.

Another feature of the website is an interactive 'Chernobyl in Australia' map which allows people to choose potential reactor sites and different wind directions to map resettlement and radiological control zones in the event that something went terribly wrong.



Comparing nuclear risks in Japan and Australia

The 'OPAL' research reactor at Lucas Heights.

Jim Green

A Japanese Parliamentary report has found that the fundamental causes of the March 2011 Fukushima nuclear disaster "are to be found in the ingrained conventions of Japanese culture". However many of the problems evident in Japan can be seen in Australia.

The 10-member Nuclear Accident Independent Investigation Commission – established by an Act of the Japanese Parliament – states that the Fukushima disaster was "a profoundly man-made disaster that could and should have been foreseen and prevented" if not for "a multitude of errors and wilful negligence that left the Fukushima plant unprepared for the events of March 11." The accident was the result of "collusion between the government, the regulators and [plant operator] TEPCO".

The chair of the Investigation Commission, Kiyoshi Kurokawa, states in the foreword to the report: "What must be admitted – very painfully – is that this was a disaster 'Made in Japan.'" However the serious, protracted problems with the nuclear industry in Japan have parallels in Australia. The uranium industry provides plenty of examples but here the focus is on the Australian Nuclear Science and Technology Organisation (ANSTO), which operates the Lucas Heights nuclear research reactor site south of Sydney.

A 1989 review of ANSTO by Atomic Energy of Canada Ltd found major problems including "poor morale and poor management-staff relations"; "a deficiency in safety culture"; key personnel not being trained; out-of-date operating manuals; poor health and safety practices; improper management of high-level radioactive waste; inadequate emergency arrangements; and the HIFAR reactor's

emergency core cooling system had been compromised resulting in unnecessary risks for two years.

On 11 June 1992, an inspection of ANSTO by the NSW Environment Protection Authority found that drums of radioactive waste were leaking, vital safety equipment was out of order, and leaking waste may have washed into the stormwater system. The federal government passed legislation making ANSTO exempt from NSW environmental and public health laws.

An internal 1998 federal Department of Industry, Science and Resources briefing document, obtained under freedom of information legislation, warns government officials: "Be careful in terms of health impacts – don't really want a detailed study done of the health of Sutherland residents."

Around the turn of the century, when the debate over ANSTO's plan for a new reactor was unfolding, whistleblowers repeatedly provided public information about accidents at Lucas Heights. Whistleblowers wrote in an April 2000 letter to Sutherland Shire Council: "The ANSTO Board has a very limited idea of what is really transpiring at Lucas Heights. For instance, the radiation contamination scare last year was only brought to the staff's attention because of a local newspaper. The incident was of such gravity, that the executive should have made an announcement over the site-emergency monitor about the incident to inform the staff. Instead the management practiced a culture of secrecy and cover-up, even to the extent of actively and rudely dissuading staff from asking too many questions about the event."

Emergency planning is inadequate and will remain so because of the head-in-the-sand approach taken by ANSTO and by federal and state governments. Nuclear engineer Tony Wood, former head of ANSTO's Division of Engineering and Reactors, noted in 2001 that ANSTO's safety procedures "are so cumbersome, and they'd take so long to implement, they'd be ineffective." Mr Wood said the Sutherland Shire Council's emergency plans conspicuously failed to even note the existence of a nuclear reactor in the Shire: "If you look at the plan regarding the public, there's no mention of the reactor. It's like it isn't there."

In 2004, ANSTO produced a report into an accident at Lucas Heights during which five workers were exposed to radiation. The report, released after a Freedom of Information request by *The Australian*, identified a range of familiar problems including staff complacency, "under appreciation of the hazard", contradictory instructions and a lapse in safety supervision.

Since 2007, ANSTO's inadequate safety standards and its treatment of several whistleblowers have been the subject of ongoing controversy and multiple inquiries. Details are posted on the Friends of the Earth website (foe.org.au/anti-nuclear/issues/oz/lh). Suffice it here to list some media headlines from 2010–12 which provide some insight into this saga:

- Lucas Heights whistleblower sparks nuclear safety fears, ABC
- Report slams Australian nuclear reactor, ABC Lateline
- Nuclear whistleblower treated unfairly, The Australian
- Nuclear safety breaches concern Opposition, ABC
- Reactor staff 'bullied over safety concerns', The Australian
- Backdown at Lucas Heights over safety claims, The Australian
- Nuclear agency safety 'stuck in 70s', The Australian
- Lucas Heights nuclear reactor bullying exposed, The Australian
- Third nuclear worker in bullying claim, *The Australian* In Australia as in Japan, there are patterns of inadequate safety practices stretching back for decades. In Australia as in Japan, whistleblowers have provided a great deal of information about nuclear accidents and safety problems.

Inadequate regulation

Nuclear regulation has clearly been substandard in Japan and it is clearly substandard in Australia. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) has been compromised from the start. The CEO of ANSTO was allowed to sit on the panel which interviewed applicants for the ARPANSA CEO job when ARPANSA



Long-standing patterns of inadequate nuclear safety practices and inadequate regulation are evident in both Japan and Australia. The difference is that Australia's industry doesn't have any nuclear power reactors to blow up.

was created in the late 1990s. ANSTO's communications manager / spin doctor John Mulcair could only say: "There are two views about that. There's my view and then there's the official ANSTO view."

There is a revolving door between ANSTO and ARPANSA, further undermining regulatory independence. At times ARPANSA has employed as many as six ex-ANSTO employees, perhaps more. Recent controversies have been complicated by a relationship between an ANSTO employee and an ARPANSA employee.

ARPANSA's handling of the 'clean up' of the Maralinga nuclear test site was its first test and it was a failure. ARPANSA's handling of ANSTO's applications to build and operate a new research reactor was problematic in many respects.

A 2005 Australian National Audit Office report was highly critical of ARPANSA. It said: "[O]verall management of conflict of interest is not sufficient to meet the requirements of the ARPANS Act and Regulations. ... Potential areas of conflict of interest are not explicitly addressed or transparently managed."

The Audit Office report also said that ARPANSA does not monitor or assess the extent to which licensees meet reporting requirements and that there had been underreporting by licence holders. It also noted that ARPANSA had reported only one designated breach to Parliament despite "a number of instances" where ARPANSA had detected non-compliance by licensees.

Problems identified by the ANAO in 2005 are still in evidence. Since 2007, ARPANSA has been drawn into the ongoing saga regarding accidents at Lucas Heights and ANSTO's treatment of whistleblowers. In 2010 ARPANSA released two conflicting reports on accidents at Lucas Heights leading to an investigation into ARPANSA itself by the Chief Auditor.

In July 2011, Parliamentary Secretary for Health and Ageing Catherine King said in a media release that the regulatory powers of ARPANSA would be reviewed after the Audit and Fraud Control Branch of the Department of Health and Ageing found that ARPANSA's handling of a safety incident at Lucas Heights lacked of consistency in evidence and transparency in the handling.

In June 2012 a KPMG report found that ARPANSA's interim and final reports into contamination incidents at ANSTO did not sufficiently examine statements made by a whistleblower.

Long-standing patterns of inadequate nuclear safety practices and inadequate regulation are evident in both Japan and Australia. The difference is that Australia's industry doesn't have any nuclear power reactors to blow up. A good thing too.

Jim Green is the national nuclear campaigner with Friends of the Earth, Australia. foe.org.au/anti-nuclear, australianmap.net

Olympic Dam and the Lizard's Revenge

Over 500 brave souls participated in the Lizard's Revenge protestacular at BHP Billiton's Olympic Dam uranium mine from July 11-20.

The event was a huge success in drawing attention to the many problems with the mine. Hundreds of newspaper, radio and TV items provided opportunities to hold BHP Billiton and the SA and federal governments to account for racist policies (such as the mine's exemptions from the SA Aboriginal Heritage Act), grossly irresponsible environmental practices, and irresponsible export policies such as selling uranium to nuclear weapons states and dictatorships.

Lizard's Revenge was also inspiring, educational and great fun for everyone who attended. Police behaviour was not as bad as it was at the Beverley uranium mine in 2000 but it was still heavy-handed, particularly the arrest of 18 protesters for innocuous stunts such as a 'Breakfast Not Bombs' event and a game of cricket on Olympic Way ('uranium is unAustralian, it's just not cricket and that's why we picket').

Fundraising events are being held in various cities to support arrestees. To support arrestees, please make a tax-deductable donation to: Bendigo Bank – Lizard's Revenge – BSB: 633000 – ACC: 145823688.

Huge thanks and congratulations to Uncle Kevin Buzzacott, Izzie Brown, Tully McIntyre, Nectaria Calan and Svea Pitman, and a big shout out to the Food Not Bombs kitchen crew, the Indig kitchen, the media team and everyone else who made Lizard's Revenge so bonza.

See www.lizardsrevenge.net for more information including photos, videos, media releases and media reports.

One month after Lizard's Revenge, BHP announced the cancellation of plans for a mega-expansion of Olympic Dam. In coming years the company will investigate an alternative, less capital-intensive design of the proposed open-pit expansion, involving new technologies, to substantially improve the economics of the project. BHP wrote-off US\$346 million which had already been invested in the proposed expansion.

Photos of Lizard's Revenge: lizardsrevenge.net/photos flickr.com/photos/zebparkes/sets greenleft.org.au/node/51648 greenleft.org.au/node/51658





Kevin Buzzacott.



Lady Geiger (Emily Johnston), winner of the Frocks on the Frontline competition.

Die-in at the Olympic Dam mine gates.



India's nuclear power failures warn against uranium exports

M.V. Ramana

Selling Australian uranium is reportedly at the top of Prime Minister Julia Gillard's priorities as she travels to India. There are three facts she may want to consider.

First, despite all the hoopla about India's nuclear ambitions, nuclear energy is unlikely to contribute more than a few percent of the country's electricity capacity in the next several decades, if ever.

India's Department of Atomic Energy (DAE) has always promised much and delivered little. In the early 1970s, for example, DAE projected that by 2000 there would be 43,000 MW of installed nuclear capacity. In 2000, that capacity was actually 2720 MW. Today, nuclear power constitutes barely 2% of the total electricity generation capacity.

There is at least one good technical reason why future targets are unlikely to be met: India is pursuing an unreliable technology. The DAE's plans involve constructing hundreds of fast breeder reactors. Fast breeder reactors are so-called because they are based on energetic (fast) neutrons and because they produce (breed) more fissile material than they consume.

In the early decades of nuclear power, many countries pursued breeder programs. But practically all of them have given up on breeder reactors as unsafe and uneconomical. Relying on a technology shown to be unreliable makes it likely that nuclear power will never become a major source of electricity in India.

The failure to meet targets is not a result of lack of money. DAE has always been lavishly funded. Its proposed budget for 2011–12 was roughly \$A1.7 billion; in comparison, the proposed 2011–12 budget of the Ministry of New and Renewable Energy was \$A0.22 billion. It's testimony to the government's priorities.

To put that in perspective, the total generating capacity of renewable energy projects was 22,233 MW, whereas the installed capacity of nuclear power was 4780 MW. Though almost all of the growth in modern renewable energy capacity has been over the last two decades, they already generate more electricity (in GWh) than all reactors put together.

Second, there are reasons to be worried about the risk of severe accidents at Indian nuclear facilities. Among all electricity generating technologies, nuclear power alone comes with the possibility of catastrophic accidents, with consequences spreading out across space and time. Despite improvements in reactor technology, the probability of such catastrophic accidents remains stubbornly greater than zero. This poses extreme organisational demands, and these demands have unfortunately not been met.

Most nuclear facilities in the country have experienced small or large accidents. Fortunately, none of these has been catastrophic. Many of these were caused by inattention to recurring problems or other warnings; to the extent that those responsible for safety have tried to fix them, they have not always been successful.

Compounding this state of affairs is the absurd confidence DAE leaders have publicly expressed – and have likely internalised – in the safety of nuclear facilities in the country. This has often taken the form of asserting that the probability of a nuclear accident in India is zero, something that was frequently heard in the aftermath of Fukushima.

Worse, on March 15, 2011, the Chairman of NPCIL reassured the public saying, "there is no nuclear accident or incident in Japan's Fukushima plants. It is a well planned emergency preparedness programme which the nuclear operators of the Tokyo Electric Power Company are carrying out to contain the residual heat after the plants had an automatic shutdown following a major earthquake."

Such denial would be laughable, but when the person opining is in charge of India's power reactor fleet, it ceases to be amusing. It is well worth noting by anyone planning to supply uranium, especially Australia, given that Australian uranium was used as fuel at the Fukushima Daiichi nuclear reactors.

Third, a large majority of the Indian public, particularly those living near proposed nuclear facilities, learned the obvious lesson from Fukushima: nuclear reactors are hazardous, and communities living near nuclear facilities would be the worst affected in the event of an accident. This is why there are ongoing protests at all new sites selected for nuclear plants. The protracted and intense protests over commissioning of the Koodankulam reactors in Tamil Nadu is just the most spectacular of these.

The risk of catastrophic accidents means that the pursuit of nuclear power is justified only if it is done democratically with the informed consent of the potentially affected populations. What the ongoing protests over Koodankulam and other reactor sites tells us is that these populations are not consenting to be subject to this risk.

They deserve to be listened to, including by Prime Minister Gillard.

M.V. Ramana works in the Woodrow Wilson School of Public and International Affairs at Princeton University. This article was originally published in The Conversation – theconversation.edu.au

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Swan Island Peace Convergence

Simon Moyle

The Queenscliff police officer walked along a row of cars that had banked up while attempting to access the Swan Island military base. "It's not workin'", he said apologetically, leaning in each drivers' side window.

What "wasn't working" was police attempts to keep activists from placing themselves on the road in front of the base, thus preventing base staff from entering. Eventually the police had to concede activists' control of the space, and the cars were forced to turn around.

The activists were there as part of the Swan Island Peace Convergence, an event designed to hinder Australia's contribution to the war in Afghanistan by targeting the secretive base just off Queenscliff. Swan Island is a training base for SAS soldiers, the elite units playing the bulk of the combat role in Afghanistan, and the Australian Secret Intelligence Service (ASIS), Australia's overseas spy agency.

This was the fourth time activists had returned to the Swan Island military base. In 2010, four activists gained access to the island, two blocking the entrance and two entering the base where they switched off military equipment. Immediately after pleading guilty (and having charges dismissed) at their court hearing, 30 people returned to the base, this time with nine people blocking the gate. In July 2011 activists returned again, this time attempting four consecutive days of blockading. There were 10 arrests over the week, with varying penalties imposed.

This time the convergence included preparation as well as action. Day 1 was devoted to getting to know one another, as well as educating ourselves on the war in Afghanistan and how Swan Island contributes to it. Day 2 included nonviolence training, blockading training, and an arrest workshop, before the children led us in a lantern walk to the gates after dark.

Day 3 saw the first attempt at blockading. With land access via only one gate, blockading is the obvious tactic to disrupt business as usual. At 5:15am the group of 40

gathered at the gates, with police standing off to the side. At the first line of cars, the formation assembled and after a considerable struggle by police to remove activists some cars made it through. This happened once more, before police made the decision to hold up all traffic until 8am, when they would attempt to let them all through.

This time activists persistently returned to the road whenever they were removed. It quickly became apparent that police were not prepared to arrest the kind of numbers that were refusing to comply, and after 10 minutes of continual attempts to remove them, police gave up. All that was left was to inform each of dozens of drivers that they would not be going to work through this gate today. The cars turned, forced to organise water transport to the island later that day. From there, the blockade held all day, as the arrival of

From there, the blockade held all day, as the arrival of children turned the space into a place for blowing bubbles, playing handball, and dancing to music.

Day 4 saw a similar but shorter attempt by police to remove the blockade, again unsuccessfully. This time there were far fewer cars, and none at the docks, indicating that base staff had simply decided not to come at all.

A speakout in solidarity with Julian Assange and Bradley Manning was held later in the morning, as well as a tree planting beside the base, before finishing the day with a spirited march through the town of Queenscliff, holding banners and singing freedom songs.

Two days of successful blockading and no arrests meant a significant disruption to the war machine at very low cost. Simon Moyle is a Baptist minister with the GraceTree community in Coburg, a nonviolence trainer with Pace e Bene Australia, and an antiwar activist.

More information:

More information, including photos, can be found at the Swan Island Peace Convergence website: swanislandpeace.org



New FoE campaign to protect environmental laws

Lauren Caulfield

In what would be an environmental disaster, cornerstone federal legislation to protect the environment would be dramatically wound back, and state governments given sweeping powers to assess and approve major development projects as part of changes currently underway to federal environmental laws.

In 1999, the Howard government introduced the Environment Protection and Biodiversity Conservation (EPBC) Act. It was meant to protect environmental areas and wildlife that were so important, and so at risk, that their existence was of national importance.

Since it was introduced, the EPBC Act has saved only a few wild places from mining and other development. Many thousands of developments have gone ahead.

Australia's environment is now under unprecedented attack. Nine open cut mines are planned for Tasmania's pristine Tarkine forests. The Broome community are battling the construction of a massive gas hub at James Price Point that would mark the beginning of the industrialisation of the Kimberley. The Great Barrier Reef is becoming a coal and gas highway, and could lose its World Heritage status.

The State of the Environment Report 2011 paints a grim picture. More and more endangered species are moving closer to extinction, and we are losing our precious places. In April this year the Business Council of Australia released a discussion paper claiming that excessive environmental regulations were reducing the productivity of Australian businesses. Although there is no evidence to support the claim, the Gillard government bowed to the demands of big business and within days negotiated an agreement with other COAG (Council of Australian Governments) members to roll back federal involvement in environmental protection. Tony Abbott and his Coalition support the move to weaken the national environment laws.

There will be three parts to this handover:

Firstly, giving the states power over environmental decisions by fast tracking 'approval bilaterals' under the EPBC Act.

These authorise states to make decisions currently made by the Commonwealth. COAG is to agree on these arrangements by December 2012 and implement them by March 2013.

Secondly, legislative amendments to the EPBC Act, some time this year, that will favour the rapid and 'seamless' approval of developments over protecting species and habitats.

Thirdly, allowing states and territories to reform state assessment and approvals to fast-track approval of major development projects.

The disastrous 20-year Regional Forest Agreements are the model for this initiative. There is a risk that RFAs themselves will be automatically renewed until 2037 and beyond as part of this package of measures, which would enshrine the industrial logging and woodchipping of native forests, and see wildlife like Victoria's endangered Leadbeater's Possum pushed closer to extinction

40 years backwards

This is the most serious attack on environmental protection in over 40 years. It doesn't take much imagination to see what the environmental implications of state decision-making would look like for our environment. In Queensland, Premier Campbell Newman has opposed any delays to coal projects, saying that Queensland is "in the business of coal".

In Western Australia, four out of five Environmental Protection Authority decision-makers on the proposed James Price Point gas hub had to disqualify themselves because of conflicts of interest; the single remaining member, unsurprisingly, approved the proposal.

In Victoria, intervention by Federal Environment Minister Tony Burke was required to stop Premier Baillieu from



Australian Nuclear Free Alliance

overturning the previous government's ban on alpine grazing, to reintroduce cattle into national parks under the guise of a 'grazing trial' that was likened to 'scientific whaling'. Meanwhile, the New South Wales government has changed laws to permit private hunters to shoot in national parks and allow fishing in critical grey nurse shark habitat.

The major environmental victories of past decades have largely been won by the federal government overturning bad development decisions by state governments. Without strong federal laws, the Franklin River would be dammed, the Great Barrier Reef would have oil rigs and Fraser Island would be a sand mine.

New Friends of the Earth campaign

In December, COAG meets to agree to the framework for handing over of approval powers to the states. Decisions about renewing Regional Forest Agreements could be made at any time.

We need decision-makers to hear our voices now. Friends of the Earth is mounting a campaign – 'Nature: Not Negotiable' – to prevent the gutting of federal environment laws and to strengthen the federal government's role in protecting the natural environment.

This campaign includes mobilising around the upcoming COAG meeting, organising with local campaigns, lobbying and community campaigning.

More information:

For more information on this work or to get involved, please visit www.foe.org.au and sign our online action to prevent the weakening of federal environmental protection.

You can find us on Twitter #naturenotneg or on Facebook at 'Nature: Not Negotiable'.

What else can you do?

Meet with, write to and/or phone your federal MP. This makes a difference. As more and more contact is made, the issue gets heard and parliamentarians become nervous. They need to know this matters to voters.

Call Prime Minister Gillard. As the head of COAG, the Prime Minister needs to hear from concerned citizens in defence of ournatural environment. PM Gillard's Canberra office: (02) 6277 7700.

Send an urgent action alert to your networks asking people to do the same.

Lauren Caulfield is a forest campaigner and law student, and will be coordinating the 'Nature: Not Negotiable' campaign out of the Melbourne office of Friends of the Earth. lauren.caulfield@foe.org.au Around 100 people attended the annual meeting of the Aboriginal-led Australian Nuclear Free Alliance (ANFA) from October 5–7 on the land of the Arrernte people in Alice Springs. The Alliance brings together Aboriginal people, environment, health groups and trade union representatives to discuss the impacts of the nuclear industry on land and communities.

The ANFA meeting was attended by representatives of the following Aboriginal nations, organisations and affiliated groups: Alyawarr, Anmatjere, Arabana, Arrernte, Gurindji, Iwaidja, Katyede, Koara, Kokatha/Anterkirinya, Kokatha/Mirning, Kokatha/Narrangar, Larrakia, Mirarr, Ngalia, Nyoongar Pitjantjatjarra, Tjupan, Walpiri, Wajarri Yamatji, Warlmanpa, Warramungu, and Yamatji.

The Alliance met at a pivotal time as Prime Minister Gillard headed overseas to progress a uranium sales deal with India, a nuclear weapons state that refuses to sign the Nuclear Non-Proliferation Treaty or the Comprehensive Test Ban Treaty.

The news that Australian uranium was present at the nuclear disaster at Fukushima had profound impacts on ANFA representatives, especially those whose country the uranium came from.

The meeting noted that numerous uranium mining proposals have been stalled in recent years including the Olympic Dam expansion (SA), Mt Gee / Arkaroola Wilderness Sanctuary (SA), Myponga (SA), Koongarra (NT), proposed heap leach mining at Ranger (NT), Kintyre and Yeelirrie (WA).

ANFA called for Australia's existing radioactive waste to remain at designated federal storage sites at Woomera (SA) and Lucas Heights (NSW) pending an independent public commission of radioactive waste management in Australia.

ANFA also called for justice and acknowledgement for communities and people suffering the intergenerational health impacts from British atomic weapons testing at Maralinga and Emu Field.

The meeting elected a new committee with three co-chairs: Mitch (NT), Peter Watts (SA) and Kado Muir (WA).

The full 2012 ANFA meeting statement is posted at www.anfa.org.au



Australia's Corporate Food Plan

Michael Croft and Nick Rose

In July 2012, the Minister for Agriculture Joe Ludwig released the green paper for Australia's first-ever National Food Plan. According to the Minister, the plan will "ensure Australia has a sustainable, globally competitive, resilient food supply that supports access to nutritious and affordable food."

Ostensibly, the plan is for the benefit of all Australians. On closer inspection, it is really a plan for large agri-business and retailing corporations. This should surprise no-one, given that it was conceived at the urging of the former Woolworths CEO, Michael Luscombe, for a food 'superministry' prior to the 2010 Federal Election.

The plan's early development was guided by a corporate-dominated National Food Policy Working Group, established after the 2010 election to 'foster a common understanding [between the Government and the food industry] of the industry's priorities, challenges and future outlook across the supply chain'.

A June 2011 Issues Paper contained 48 questions, 24 of which concerned the need to develop a 'competitive, productive and efficient food industry'. There was a solitary question regarding environmental sustainability, and the Government set the agenda as to what was on the table for discussion.

Despite this unpromising trajectory, many members of the Australian community engaged in good faith with the Government's invitation for public consultation. 279 written submissions were received, with several identifying the need for transformative changes. Melbourne University's Victorian Eco-Innovation Lab, which produced the ground-breaking *Food Supply Scenarios* report, commented that: "Substantial, unavoidable and imminent changes in our food supply systems ... require fundamental shifts in how we manage land and resources for food production ... These potentially non-linear changes mean the past is not necessarily a reliable indicator of the future and care must be taken in avoiding 'lazy' assumptions about the possibility of continuing in a business-as-usual trajectory."

The green paper is largely based on such business-as-usual assumptions. Thus, Australia 'has a strong, safe and stable food system' and our food industry is 'resilient and flexible'. A key focus is about our food industry 'seizing new market opportunities', reflecting the Prime Minister's urging that we become 'the food bowl of Asia'. Allan Curtis has exposed that claim – which underpins much of the green paper – as a preposterous example of wishful thinking.

In this article, we discuss significant flawed assumptions on which the green paper is based. These assumptions tend to be implicit, reflecting an underlying political commitment to the free market, free trade and the necessity of constantly expanding production.

1. Food insecurity will be addressed through increased production

The green paper makes some concessions to the multidimensionality of food insecurity. Overwhelmingly, however, the message is that more food needs to be produced, and that such production will, when combined with the further liberalisation of trade in agriculture, deal with the challenge of food insecurity.

When the Food Plan was first announced, it was presented as an effort to 'develop a strategy to maximise food production opportunities.' Yet food insecurity persists, and is increasing, in a world awash with food. In Australia, conservative estimates indicate that around 5% of the population experience food insecurity, although we produce enough food to feed 60 million people. Globally, the world produces enough food for 11 billion with a global population of 7 billion, and yet nearly 1 billion people are chronically malnourished; and as much as 40% of all food purchased is wasted.

The green paper says very little about the fundamental, underlying cause of food insecurity: glaring, and increasing, inequality. Hunger – and other related social pathologies, such as the obesity pandemic – are the result of a corporate-controlled food system that distributes resources according to the ability to pay, rather than need. The over-riding imperative of this system is to generate profits, not to feed people well.

2. The future will look much the same as the past

The green paper speaks of 'temporary' disruptions to food production through adverse weather events, and how some communities might suffer 'transient food insecurity' as a result. It is equivocal about the impacts of climate change, ignoring recent detailed assessments by the Bureau of Meteorology and CSIRO which confirm a decades-long pronounced drying pattern along Australia's east coast, and south-east and south-west regions.

According to the Minister, 'Australian inventiveness' will 'find the solutions'; and our excess production will emerge unscathed, even enhanced, if only our farmers embrace bio-technology. Yet the world's leading agricultural scientists and development experts, and the United Nations Special Rapporteur on the Right to Food have made it clear: we need holistic and systemic change in agriculture.

3. Farm incomes will be higher when more is produced

The core of the green paper is about Australia exporting to Asia. The assumption here is that demand growth will outstrip supply, and so there will be a more or less permanent dynamic of increasing returns to Australian producers through higher volumes. But any farmer knows that price-taking commodity producers suffer price reductions in a glut. Targeting niche markets is a response to oversupply and price squeezes. Lower cost producers will target these niches, and the consequences will be more of the same for Australian producers – diminishing returns.

Further, the green paper glosses over the demographic crisis facing Australian farmers, accepting as an inevitability ongoing rationalisation and 'structural adjustment with declining farm business numbers (i.e. fewer people operating the same land area), increasing technological adoption and use of other management models such as corporate farming.'

4. Food corporations and markets will solve the problems of inequity

While the Government wants Australia's food industry to 'feed the world', this industry, by any measure, has failed to achieve the basic objective of maintaining a healthy population in Australia. Current projections show that nearly 80% of the adult population will be overweight or obese in little over a decade. The principal burden of the associated ill-health falls on lower socio-economic groups, and on children in particular. Thus it is a rich irony that the green paper assigns a major responsibility for redressing this situation to the very corporations who have profited so well from cultivating consumer preferences – and particularly the tastes of children and youth – for unhealthy and addictive products.

5. The free market-based food system is efficient

If free markets are the most efficient economic system known, why is it that, in 1940, the more localised food system produced 2.3 calories of food for one calorie of oil; but after several decades of 'market efficiency dividends', it now takes between 8 and 10 calories of oil – and often much more – to deliver that same calorie of food? In truth, the 'market efficiencies' are largely illusory. Cheap and easily accessible oil has allowed the industrial food system to flourish, but this era is ending. Biofuels are one of

and easily accessible oil has allowed the industrial food system to flourish, but this era is ending. Biofuels are one of the market's responses to the price rises of this dwindling resource (coal seam gas is another); but the corporate rush to produce them, underwritten by state subsidies and targets in the name of the 'green economy', has been identified as a key cause of the mass suffering that occurred in the 2008 food crisis.



A different way forward – the People's Food Plan

Contrary to the Government's claims, the green paper is a recipe for increasing vulnerability, lack of resilience and heightened inequality in our food system. A different approach, based on a different set of values and priorities, is required. That's why the Australian Food Sovereignty Alliance is inviting all concerned members of the Australian public to join us in a participatory and democratic conversation to develop a food system that is truly fit for the challenges of this century. We look to the the Canadian People's Food Policy Project and the Scottish Food Manifesto as examples of what is possible.

The People's Food Plan proposes a holistic view of our food system and a comprehensive understanding of the changes required to turn this system into one that meets the needs of the people who depend on it rather than filling the coffers of the companies who control it.

The People's Food Plan needs to be widely debated, discussed and re-drafted to reflect the concerns and priorities of the Australian community as a whole. We're inviting those who belong to groups to hold a meeting of your members to discuss and comment on the plan and to suggest changes / additions. We are keen to get your feedback so that we can capture as many voices from the fair food movement as possible.

This article first appeared in The Conversation. For more information, visit australian.foodsovereigntyalliance.org Michael Croft is a biological family farmer, a director of several industry organisations, a leader in the Slow Food movement, and President of the Australian Food Sovereignty Alliance. Nick Rose is the national coordinator of the Australian Food Sovereignty Alliance and a Director of the Food Connect Foundation.

James Price Point gas hub controversy

Róisin Mortimer

The name James Price Point is starting to ring bells across the country. Located 40 kms north of Broome, the point has been proposed for the largest gas processing plant in the world.

Petroleum giant Woodside and WA Premier Colin Barnett are leading a formidable team of joint venture partners – BP, BHP, Shell, and Mitsui/Mitsubishi – in the proposal for a Browse Natural Liquefied Gas Hub as part of the Premier's grandiose Kimberley development project.

The building of the gas hub would spell the destruction of James Price Point, which is a unique ecosystem and home to the Goolarabooloo and Jabba Jabba people. It would waste significant sums of taxpayer's money in the construction of a new processing site when viable alternatives are already in operation in the Pilbara.

The support Woodside's proposal has gained from Barnett and industry is huge. However, there has been huge community protests against the planned development with many arrests in recent months, and recent visits by leading whale activists Sea Shepherd and former Greens leader Bob Brown to vouch their support.

James Price Point is of enormous cultural and ecological significance. It is part of an Aboriginal song line which encapsulates history, geography, culture, song and law. More than 30 Aboriginal tribes remain in the region today, each with their own language and unique cultural practices. Evidence has been found of Aboriginal habitation as far back as 28,000 years on the Dampier Peninsula (the greater region of James Price Point), and 40,000 years elsewhere in the Kimberley.

The proposed gas hub was recently granted environmental approval by the WA Environmental Protection Authority, and is now awaiting further assessment by the federal environment minister. It would appear that Barnett's main motivation for choosing James Price Point for the hub is that it would create a prime gateway to open up the entire Kimberley area to further mining and gas developments. Given the scale of the project one would expect a robust and comprehensive environmental impact assessment based on sound science, however this was not the case. Furthermore, when the EPA made its assessment, four of the five EPA board members had to withdraw from the decision making process due to conflict of interest, leaving a 'quorum' of one. James Price Point is a calving ground for the world's largest population of humpback whales – there have

been hundreds of reported sightings within the past few months – and home to newly discovered Spinner Dolphins, endangered Hawksbill turtles, dugongs and incredible dinosaur footprints.

The Kimberley is home to thousands of plant and animal species, many highly specialised, vulnerable, threatened or endangered, including the Golden bandicoot, the Scaly tailed possum, and the Kimberley Rock and Kimberley Cave bats. The iconic exposed sandstones overlaid with the reddish sandy plains characteristic to the region are covered with numerous fossil marine shells and a number of dinosaur footprints.

There are viable alternatives to the Woodside project. Gas could be piped to existing facilities in the Pilbara, or floating gas technology could be utilised. Recent reports from Citibank advisers have also found that costs could be reduced by \$15 billion if the gas was shipped to the Pilbara area, where it would receive a rate of return 4% higher. Leading analysts employed by Merril Lynch and JP Morgan have also expressed doubts. Mr Barnett has justified the significant associated costs by citing plans which would generate economic revenue through further destruction of the area's invaluable and irreplaceable ecological and cultural assets.

If we're serious about protecting our nation's future we need to stop seeking short-sighted economic windfalls, and look at the broader picture. James Price Point is an asset to Australia, and one which should be worthy of protection for its cultural significance, uniquely beautiful environment and the habitat it provides for wildlife. Mr Barnett needs a big wake up call, as do Tony and Julia. We need James Price Point to become an election issue to signal that we, the next generation, do not want to live in a landscape devoid of life.



Seeing REDD in Kalimantan

Ellen Roberts from FoE Melbourne reports on the latest news from Australia's pilot forest carbon offset project in Indonesia.

Since 2005, there has been a turn to the world's forests as a point of potential agreement in climate change politics at an international level. Under the term 'REDD+', policy-makers have been negotiating the inclusion of land-based emissions in a future UN agreement on climate mitigation. REDD+ means reducing emissions from deforestation and forest degradation in developing countries.

Lots of the details are unsettled including how to finance REDD programs (with carbon trading, state grants, or a mix), and how to deal with the potential complications such as unclear land tenure, and the risks REDD may pose to indigenous and forest people's social and cultural rights. While the debate on these issues goes on, nations like Australia have been creating pilot projects to demonstrate their particular preference for how REDD should be put into action.

By any account, Australia's REDD project in Kalimantan, Indonesia has gone wrong. Alexander Downer first announced the Kalimantan Forests and Climate Partnership (KFCP) in 2007, claiming the project would not only lead to rehabilitation of carbon-rich peatland which has been logged and drained for a failed agricultural project in the 1990s, but would also show the world that forest carbon trading was possible.

Downer, and then Labor foreign ministers after him, claimed projects like this around the world could one day provide carbon credits to polluters around the globe.

Five years on and problems with the KFCP are great, and multiplying. Firstly, there have been conflicts with the local community over the project, some of whom say that they have never agreed to have this kind of carbon trading project on their land.

In an open letter to the district government in September 2012, local community leaders stated that "The [KFCP] project management tends to rely on the police or military personnel to curb conflicts, ... Military personnel were invited to attend meetings with community creating intimidated feeling among communities."

Disputes have focussed on unpaid wages for work undertaken by local villagers. Community members resent being considered only as labour for the project, and their knowledge about the unique conditions in the area have been ignored in project design and implementation.

Friends of the Earth Australia has been campaigning on issues with the KFCP since 2009, and in 2010 sponsored three people from Indonesia to publicise the issue in Australia. In September 2012 Rebecca Pearse from FoE Sydney accompanied a field trip to the project site. The field team encountered a community deeply concerned about this multi-million dollar aid project taking place on their lands.



Former Indonesian President Suharto ordered the land to be cleared in 1996 for the mega rice project and the remaining peat deposits continue to burn regularly, creating smoke which significantly contributes to Indonesia's greenhouse gas emissions. An Australian funded aid project in a section of the site which sought to reduce these fires has created conflict with the local community and failed to deliver planned emissions reductions.

Controlling fires in this area is obviously crucial not only to minimise emissions but also to avoid local health impacts.

Australian aid agencies claim that working with villagers on tree planting and fire management provides grassroots benefits for the project. However villagers point to encroaching oil palm plantations and logging and mining activities as a potentially greater source of environmental destruction than their small scale farming practices.

With the Climate Justice Program and WALHI, FoE Australia is committed to continuing to support the community for a revision of the KFCP in line with their needs, knowledge and basic rights. From the beginning we have argued that seeking emissions reductions in Indonesia's forests should never be considered a substitute for stopping Australia's own industrial emissions – which is further reinforced by on the ground experience of these forest carbon trading projects.

More information:

For more information on the KFCP and FoE Australia's carbon trading campaign, visit http://skymoney.org.au

Since it was drained and cleared in 1996, the site of Suharto's failed mega rice project has regularly burned, contributing significantly to Indonesia's greenhouse emissions.

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Reverse Garbage Co-op, Brisbane



Reverse Emporium gallery and giftshop housed within the Reverse Garbage warehouse

Workshop at Reverse Garbage.

Reverse Garbage Brisbane is a not-for-profit worker run co-operative that promotes environmental sustainability and resource reuse. Essentially, the organisation collects high quality industrial discards, diverting them away from landfill and sells them at a low cost to the general public.

Education is at the core of the organisation with environment and waste focused art workshops forming a large part of the business. Reverse Garbage also offers a mail order service and hosts retail space, Reverse Emporium.

Friends of the Earth, Brisbane has a long standing relationship with Reverse Garbage. Its initiator and co-founder John Hepburn was an active member of FoE Brisbane at the time of its inception and Reverse Garbage was established to provide both financial and infrastructural support for FoE's core activities and campaigns. The two organisations are housed in the same building and support for FoE Brisbane is written into Reverse Garbage's constitution.

Also set up to provide meaningful and ecologically sustainable employment, Reverse Garbage strives to be an example of a truly sustainable enterprise. Social sustainability is practiced through a worker-managed co-operative model that encourages workplace equity. There is no manager or external board, and business decisions are made by worker-directors using a consensus decision-making model. Currently there are 10 workers, six of whom are member-directors, one a non-director member and three working their way towards becoming member-directors.

As a not-for-profit, any surplus produced by the business goes into improving and expanding their work and supporting FoE Brisbane. To ensure long-term financial sustainability Reverse Garbage does not accept external financial support for the core business although donations are occasionally solicited for one-off projects.

Reverse Garbage's education programs aim to shift attitudes surrounding our treatment of the environment. Facilitators introduce creative ways to reuse that inspire and educate others to re-think the way that they think about waste.

These workshops are run by facilitators in schools, childcare centres, public libraries at festivals and clubs throughout South East Queensland as well as internally every school holidays.

The mail order service was developed as a means of reaching people outside of South East Queensland and themed barrels were developed to complement the workshop programs. Heavy-duty cardboard barrels suitable for painting, collage and decorating are filled with clean industrial discards and sent all over Australia. Each barrel also includes an educational flyer with information on waste and the benefits of re-use.

The retail space, Reverse Emporium, provides an avenue for local artists, craft workers and designers who salvage, reuse and up-cycle materials to exhibit and sell their works and wares. Reverse Emporium stocks gorgeous high quality art, jewellery, accessories, furniture, home wares, gifts and trinkets that are perfect for the eco-conscious buyer and runs a quarterly series of exhibitions to showcase the work of these talented Brisbane artists.

The co-operative, now in its thirteenth year, was originally housed in Montague Road, West End. Reverse Garbage relocated to 20 Burke Street, Woolloongabba in early 2011 at the end of their lease and to allow for expansion. Current plans include fundraising to buy a building to secure independence and financial stability for both organisations.

More information:

Website: www.reversegarbage.com.au

Facebook: www.facebook.com/reversegarbage

Location: 20 Burke Street,

Woolloongabba Qld 4102

Phone: 07 3891 9744

Opening hours: Monday to Saturday

from 9am to 5pm

Chlorine contamination of drinking water

Anthony Amis

More attention should be paid to the elephant in the room in terms of drinking water quality – chlorine. More specifically, chlorine disinfection byproducts, which are created when organic molecules in the water distribution system interact and react with chlorine.

For some time, I have been researching the impacts of pesticides and heavy metals on drinking water. Much of the information is buried in the appendices of scientific reports, or on computers in various water authority offices, or in the bowels of governmental departments. It was often a painstaking process, piecing together tiny fragments of a jigsaw puzzle that could never be properly put together, because very often the information just wasn't there in the first place.

Through my research it is evident that many Australian drinking water supplies are exposed to pesticides, yet few instances occur when the levels recorded go over the generous drinking water guidelines set by the National Health and Medical Research Council or the World Health Organisation (WHO). I have collated a list of almost 2000 pesticide detections in domestic water supplies across Australia and there have been 24 instances which have breached the Australian Drinking Water Guidelines.

It is little wonder that regulators have been slow to react when there have been few detections of breaches of drinking water guidelines. Nonetheless, there are a host of ecological and health problems associated with even very low levels of pesticides. But in terms of human health, drinking water breaches from pesticides pale into insignificance when one looks at chlorine disinfection byproducts.

In July, Friends of the Earth submitted a Freedom of Information application to SA Water. We asked for all substances that SA Water tests for in relation to health criteria. In August, SA Water replied with over 9000 pages of information, including over 600,000 individual test results. The documents reveal 9358 breaches of Australian Drinking Water Guidelines and World Health Organisation guidelines.

Of the breaches, 35 were for heavy metals, four for ecoli and the rest (over 99.5%) for chlorine and its disinfection byproducts. Chlorine was first used as a disinfectant in the early 20th century as a means of controlling water borne diseases such as cholera and typhoid which had killed hundreds of thousands of people. Chlorine disinfection byproducts weren't discovered until 1974 and have been linked with bladder cancer and adverse reproductive outcomes. Approximately 700 chlorine disinfection byproducts have now been identified.

Approximately 90% of the breaches revealed in the Freedom of Information documents occurred in country South Australia, with the largest number of breaches between 2000–12 recorded at Kingscote (Kangaroo Island) 435, Loxton 325, Burra North 302, Port Pirie 259, Port Augusta 257, Maitland 232, Morgan 224, Willunga 205, Crystal Brook 178 and Whyalla 173. In terms of the greater Adelaide region, the highest number of breaches were recorded at Craigmore 54, Happy Valley 30, Seaford Rise 27, Blakeview 23, Elizabeth Downs 22, Andrews Farm 21, Enfield 19, Blackwood 18, Chandlers Hill 16 and Glenalta 15.

The highest number of breaches were for monochloramines (5165). There are concerns that chloramines can cause various health problems and aggravate existing ones, primarily skin, digestive and respiratory ailments.

The second highest number of breaches were for dichlorobromoform – 2382 breaches of the WHO Guidelines. Dichlorobromoform has commonly been detected in Adelaide drinking water above WHO guidelines for the past decade, at least. According to the WHO, dichlorobromoform is possibly carcinogenic to humans, and there have been both positive and negative results in a variety of in vitro and in vivo genotoxicity assays.

Trihalomethanes were the next most commonly detected substance (581). These were concentrated mainly on Kangaroo Island, however detections have increased significantly since 2010, particularly in locations in the lower Murray such as Hindmarsh Island.

Levels of N-Nitrosodimethylamine – a suspected carcinogen – breached guidelines levels regularly in the SA Lower Lakes, with the highest level recorded at Keith. Water authorities are making a trade off between the risk

Water authorities are making a trade off between the risk of people being exposed to dangerous diseases such as typhoid if chlorine was not used, and the lower risk of people developing bladder cancers and the like if chlorine continues to be used. It is unlikely that authorities will reduce the amount of disinfectant being used for fear of being responsible for a waterborne disease outbreak.

Chlorine does not have to be used at all as a disinfectant. Ultraviolet light works well as a disinfectant and is commonly used in Europe. However the cost of converting water facilities over from chlorine to UV treatment may be prohibitive. People concerned about consuming chlorine disinfection byproducts can reduce levels with a good quality water filter. Filters using reverse osmosis or activated carbon would probably be the best option and can be fitted under kitchen sinks.

Anthony Amis is the pesticides spokesperson for Friends of the Earth, Australia.



Uncovering a cancer cluster in Tasmania

Tomorrow's Children Poppy Lopatniuk 2012

Tomorrow's Children can be purchased from Lucy Lopatniuk, ph (03) 6245 1557 or 0418 322 674, email lucylopat@hotmail.com

Bronwyn Williams reviews 85 year old Tasmanian activist Poppy Lopatniuk's book about the Tasmanian Department of Health's cover up of a cancer cluster around an old toxic landfill on the eastern shore of Hobart.

I met Poppy recently – the happy recipient of a luncheon invitation, graciously extended to a friend of a friend. I was welcomed into her calmly ordered home, and fed an excellent carrot soup, and blueberry muffins.

Poppy's book, *Tomorrow's Children*, was devoured in a few hours. It is as engaging and compelling as its author, and tells a story that is both joyful, and deeply disturbing. Poppy's childhood in country north-west Tasmania was a happy, carefree time, and her recollection is clear. The reader slips into the narrative of these years like tired shoulders into a warm, cossetting cardi. They are enveloped in something comforting and undemanding, and an irrepressible smile takes hold of their expression.

Poppy's account of her young adult years in New Norfolk, and her adventures on the high seas between Sydney and Marseilles reveal a fearless, free-spirited young woman, with a keen sense of the world, and a faultless capacity to observe and recall. Following her journeys through Europe and the United Kingdom, I was in awe of her recollection, and her unassuming storytelling, and a little envious of her ability to take life's adventures in her stride. To travel far from the safe haven of a loving home, and find out for herself just how big the world really is.

On her return, Poppy met and married her husband, Stefan Lopatniuk. Stefan was a Ukrainian migrant to Tasmania – a man whose childhood was as sad as Poppy's had been happy. Poppy and Stefan began their life together in North Hobart, and then, in 1965, with three small girls, they moved to the beachside suburb of Howrah, on Hobart's eastern shore.

Poppy had strength and resilience in spades, but the move to Howrah would eventually test every scrap of those attributes. The family's new home in Correa Street was adjacent to a still-functioning landfill site.

The establishment of the tip in a residential area had been strongly opposed by local homeowners, and Poppy refers to a builder who recalled "the excavation of car tyres, plastic items, bottles and household appliances, and the presence of a black gooey substance", as new homes were built near the site. The site was later to become, and remains, Wentworth Park.

At the age of nine, Poppy's youngest, her son Peter, was diagnosed with Acute Myeloid Leukaemia – a blood cancer rarely seen in children. After four years of intensive treatment, Peter was declared to be in remission "with as much chance of the illness re-occurring as any other healthy person would have". Nineteen years later the

'Poppy Lopatniuk is a true Tasmanian, born and bred – a woman who delighted in the bucolic wonders of her childhood home, and the idyllic life it offered.'

leukaemia returned, and Peter did not survive the second assault. Poppy's despair at his death is palpable. "Such heartbreak", she says. "It took all my powers to keep on an even keel."

In the years after Peter's diagnosis, Poppy saw several of her neighbours – young, healthy adults with families – succumb to an array of cancers. She documented at least 40 cancer diagnoses, 13 of which were blood cancers, in the two small streets either side of the landfill area at Wentworth Park. Her daughters suffer from rare auto-immune conditions, and her grandson was diagnosed at

age five with a million-to-one craniopharyngioma brain cancer in 1998. Within a few short years, Poppy endured the deaths of her husband and son, and witnessed the life-changing diagnosis of cancer in her grandson.

It was more than enough sadness to fell the spirit of most women, but not Poppy. The heavy burden on her soul is apparent, as she copes with the decline of her beloved husband with dementia, and the failing health of her son, and the challenges facing her daughters and her grandson. She is sorely tested, but her quest to find answers to the distressing cluster of major health issues afflicting residents of Wentworth Park continues undeterred.

When her son was first ill, Poppy considered a link between toxic waste dumped at the landfill site and her child's rare condition. The public health authorities showed no interest in her ideas. As more and more unusual cancers, and other rare conditions began appearing in neighbouring families, the connection became more plausible.

For over 30 years, Poppy has struggled with government at all levels in an untiring effort to find the truth. For many of those years she suspected that contaminated and highly toxic used oils were illegally dumped at Howrah tip. An investigation of the Wentworth Park cancer deaths was aired on Judy Tierney's ABC Lateline program in 2003 and revealed that, unknown to residents, the tip had been used as a repository for used oils, and it was legal to dump them. Anything, it seemed, could be left at the tip, with no apparent concern for the welfare of nearby residents.

Poppy details her encounters, over many years, with the Department of Health and its staff, with Clarence City

Council, and with politicians of varying stripes. Her recall is meticulous – the narrative is clean and factual, and absent of any rancour. It is unnecessary. The responses of those in power speak volumes, epitomizing an absence of empathy and an inadequate 'ignore it and it might go away' attitude.

'Official' statistics recorded in the state Cancer Registry were paraded smugly before all those of diminished faith in the Tasmanian health system. The Howrah postcode area showed no significant increase in the incidence of cancers related to the landfill site, they said, and an anxious populace was assured there was no need for concern.

The hollow assurances of the government fail to acknowledge that their figures take no account of localised clusters of disease, and the fact that many of the affected Wentworth Park residents were diagnosed after they left the area. Poppy's pursuit of more relevant figures remains a key element of her quest.

Poppy Lopatniuk is a true Tasmanian, born and bred – a woman who delighted in the bucolic wonders of her childhood home, and the idyllic life it offered. A woman who has taken her time on this earth firmly in hand – embraced its joys, and borne its perversity with unfailing grace. She is now 85 years old, and the quest chronicled in *Tomorrow's Children* continues. Her parting comments are perhaps the most telling: "These days I have lost that pride and enchantment in being a Tasmanian. Through mistrust and disillusionment I now live in a no man's land of unassuaged loss and unanswered questions."

I commend her slim, beautifully written work to all who see virtue in the pursuit of truth.



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Mine-field

Paul Cleary

August 2012

RRP: \$24.99, ISBN: 9781863955706, Black

Inc. Books

blackincbooks.com/books/mine-field

Review by Ellen Roberts

When federal environment minister Tony Burke made the decision to approve Gina Reinhardt's enormous coal mine near the own of Alpha in outback Queensland, I rang his office to give them a piece of my mind. The minister himself had described the Environmental Impact Statement prepared for the mine as 'shambolic' but saw fit a couple of months later to give the mine the big tick.

The man on the other end of the phone, with infinite weariness in his voice, explained that the mine had been approved subject to 19 conditions that would minimise the impact on the local environment. Unlucky for him I'd just been reading Paul Cleary's book *Mine-field*.

'You and I both know,' I said, mustering some indignation for this somewhat artificial interaction, 'that environmental conditions on mines in Australia are not enforced, and are just a way for your department to window dress these destructive projects!'

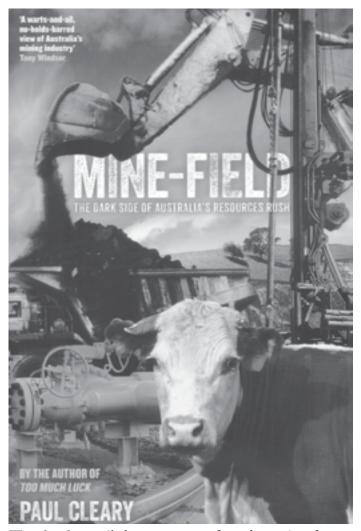
Pause. 'I would suggest that you put your concerns in writing,' he said. He's got no comeback to that, I thought, with some satisfaction.

Paul Cleary's no rabid greenie. He writes for *The Australian* after all. But the chapters in *Mine-field* on environmental regulation and enforcement, appropriately titled 'The Tail Wags the Dog' are very useful reading for anyone working on mining issues in Australia. Cleary makes an argument that the mining industry in Australia operates without any effective oversight from government. 'Third world governance', Cleary calls it, and it makes Australia attractive for mining investment.

Cleary gives the example of the expansion of the Olympic Dam uranium mine, which was approved without a plan for how the mine was to manage the 8 million litres of contiminated water that the mine would be releasing into ground water every day. Coal seam gas projects are approved without plans for managing waste or minimising the effect on water tables.

As with Australian political parties, there is a close relationship between the mining industry and the government bureaucrats charged with regulating mines. In his Quartley Essay 'Quarry Vision', Guy Pearse documented the churn of personnel between the Labor and Liberal parties and the fossil fuel industry. Cleary highlights how his happens even at a departmental level: between 2010 and early 2012 the Queensland Environment Department lost 70 staff to resource companies who are able to use the knowledge of these former bureaucrats to ease their way through environmental regulation.

Another book documenting mining in Australia is Sharyn Munro's *Rich Land*



Wasteland, compiled over two years from the stories of people in NSW and Queensland who have been fighting, suffering or living around coal mines. The book is an crucial oral history cataloguing the stories of the hundreds of people.

I was at a meeting on the outskirts of Melbourne about a local coal mining project, and the local group had invited Kate Tubbs from the neighbouring town of Bacchus Marsh to share her experiences of fighting the coal mine there. At the end of her talk she held up a copy of *Rich Land Wasteland* and urged people in the meeting to read it, to get a sense of mining from the perspective of local communities. *Rich Land Wasteland* has become an important reminder for coal affected communities that they are not alone and that their experiences are unfortunately shared by many others around the country.

Like Cleary, Munro highlights the lack of governmental control over the mining industry. Communities are now initiating monitoring of coal dust and health studies because there is little attention given by the government to this issue. Pollution from mines into rivers is barely policed and any fines are tiny.

The scale of Munro's book is as bewildering as Australia's mining industry. She interviewed literally hundreds of people. If Munro was interested in writing a second book it would be very useful to have a couple of stories developed in depth to get a sense of how the relationships between communities and individuals and the mines they oppose change and develop over time. As it stands now, it is an important snap-shot of the human cost of the coal rush.

[See Len Puglisi's review of Rich Land Wasteland on p.48.]

Richard Broinowski

Fallout from Fukushima

'A much-needed wake-up call' Dr Sue Wareham, OAM

Fallout from Fukushima

Richard Broinowski
October 2012
RRP \$27.95, e-book \$18.99
Scribe Publications
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scribepublications.com.au/books-authors/title/fallout-from-fukushima

Unless you've spent the past decade under a rock you'll know about the phenomenon of 'pro-nuclear environmentalists'. It's unlikely you could name more than a few ... because there are no more than a few.

It's largely a beat-up by the industry and the corporate media. In 2006, for example, Channel 9's 'Sunday' program hosted a debate including someone claiming to be a representative of 'Environmentalists for Nuclear Energy'. He later acknowledged that the organisation does not exist!

Much less attention is given to nuclear supporters turned opponents. One such person is former Australian diplomat Prof. Richard Broinowski, author of *Fallout from Fukushima*.

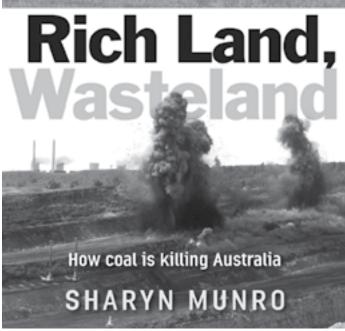
Fallout from Fukushima tells the story of Japan's worst nuclear disaster, and the attempts to suppress, downplay, and obscure its consequences. Broinowski travelled into the irradiated zone to speak to those affected and to find out why authorities delayed warning the public about the severity of the radiation. Combining interviews, research, and analysis, he reveals the extent of the disaster's consequences: the ruinous compensation claims faced by electricity supplier TEPCO; the complete shutdown of Japan's nuclear reactors; and the psychological impact on those who, unable to return to their farms and villages, may become permanent nuclear refugees.



Broinowski puts this nuclear tragedy in context, tracing the path back through Tokyo, Three Mile Island, and Chernobyl. Examining what the disaster will mean for the international nuclear industry, he explores why some countries are abandoning nuclear power, while others including Australia, through its export of uranium continue to put their faith in this dangerous technology. Prof. Ian Lowe, President of the Australian Conservation Foundation, and another nuclear supporter turned critic, describes Fallout from Fukushima as the definitive analysis of the accident and states: "If you are tempted to see a role for nuclear energy, you should read this book." Gavan McCormack, Emeritus Professor at ANU, states: "The earthquake, tsunami, and nuclear meltdown that brought Japan close to collapse in the days and weeks that followed 11 March 2011 also helped prise open a window into the way that for more than five decades high officials of state had colluded to create, cosset, and expand the nuclear industry, minimising safety concerns and evading democratic supervision. The result was a crisis of a depth and complexity hitherto unknown, from which author Broinowski doubts that the Japanese industry can recover ... His book offers a lucid guide to the events and their implications, not only for Japan but also for the world."

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Rich Land, Wasteland: How coal is killing Australia

Sharyn Munro RRP \$29.99

Jointly published by Exisle Publishing and Pan Macmillan Australia.

Paperback, 453 pages, ISBN 978-1-7426-1099-3

Order from richlandwasteland.com (See also sharynmunro.com)

Review by Len Puglisi

If you've ever had doubts about what the economic rationalist / neoliberal ethos might mean for Australia, look no further than this book by Sharyn Munro. She has undertaken a wide-ranging spread of interviews with people in many of the agricultural regions of Australia, and has attended untold meetings and culled myriad reports and tribunal/court hearings. She documents a sad tale: displacement of people and loss of community, flora and fauna; severe health effects; loss or degradation of prime land and water courses; and industry intransigence and obfuscation.

Munro describes the scope of mining activity which covers vast areas – especially in NSW, Queensland and West Australia, but also potentially for "new frontiers" in Victoria, South Australia and Tasmania. Mining companies have Gippsland firmly in their sights, writes Munro, plus the Dandenong Ranges and the region around the Bay of Islands Coastal Park, near the iconic Twelve Apostles.

On page after page, Munro reports people's shock, horror and anger at the sudden transformations happening in their lives and their communities, the degradation of the soils and water courses, and the sense of betrayal they feel from government bodies they thought were there to protect them.

It's possible to choose from almost any page in the book for these expressions of dismay. Some examples follow as presented by Munro or out of the mouths of people she interviewed.

For local communities: "In some years' time, what will we have? There won't be any little towns; Chincilla will be a ghost town ... already it's different; so many new people, and rents gone up so much that people have had to leave; it's all out of whack – they have no respect for the social fabric of the small communities."

For individuals' financial situation: "Three mines were each discharging two megalitres a day of mine-water – legally then – into the river. Many Hunter mines are 'wet', and have to get rid of the saline water they come across. This was a dry season, the water in the creek was low, the pump foot valves had to go deep – where the saline water sinks to and lurks. (She) had to dry off half her dairy herd as she couldn't grow feed for them. She was losing more money each year: \$40,000, then \$80,000, then over \$100,000."

For local air and noise pollution: "Now ... half the time it's too dusty to be outside; it's too noisy and unpleasant ... the whole atmosphere of Camberwell is different."

"There was dust on the grass and on the barley crop. The milk was being rejected because of the dust content in the milk. Refrigerated milk vats had to be washed out with special detergents and the lids left up for so many hours for the odours to evaporate, which is when the dust would come in "

For rivers, streams and wetlands: "The attack on our water is threefold: The depletion or contamination by

mining or drilling under or near any part of our intricate, fragile and interconnected water systems; the amount of water they use, extracted to get at the coal or CSG, to process the coal, and to burn it for power; and the pollution from their waste water, the disposal of which is an unresolved problem of major consequence, so it can't be acknowledged as such."

For global warming and CO2 effects: "In December 2006, a young activist ... of Rising Tide Newcastle, won an historic victory in the Land and Environment Court against Planning's acceptance of the 'flawed and invalid' environmental assessment for Anvil Hill. This meant that Planning must consider the climate change consequences in environmental impacts from a mine - not just the direct, onsite emissions, but also the indirect, from the coal's eventual use. The 10.5 million tonnes of coal from Anvil Hill, when burnt, would produce 12.5 million tonnes of carbon dioxide a year - equivalent to doubling the number of cars on NSW roads. That case is still quoted internationally ... But it didn't matter what anyone did or said, or how evidently right they were, for in June 2007 Planning Minister Sartor approved Anvil Hill regardless, under the villainous Part 3A." ('State significance' decision power reserved to the Minister.)

For historic houses and notable gardens: "It is now over three years since we drove away and watched our home of almost all our lives disappear in the rear vision mirror. A majestic home and property ... that 30 years before was highly prized in a pristine and productive part of the [Hunter] Valley. At the time of driving away the whole area was little more than a dustbowl for the numerous mines crammed in together – a moonscape of open cut mines ..."

For the integrity of governments and government advisers: "... this formidable pair fights to ward off the latest mine as well as to make the others accountable. Consent conditions when a mine is approved are supposed to see to that; it's all part of the spin that rules not only exist but are respected, abided by, monitored, enforced, and their breaches penalised - as occasionally they are, at a slap-with-a-feather level. For example, \$1500 means nothing to a company whose profits are counted in billions, and you have to catch them at it first and prove it. And the 'you' tends to be vigilant locals, not the few and underdeployed staff of government agencies like the Environment Protection Authority (EPA) or the Department of Planning , who set the conditions. Every time they boast how many conditions have been placed on a new approval, unless they announce new staff to police them, those conditions mean nothing. The mines monitor and report on themselves. It's like having laws and almost no police force, instead relying on the lawbreakers or the victims to report the crimes."

There are many more sad and confronting examples of these dysfunctional situations throughout Munro's book: intrusion into Aboriginal lands, intrusions in public lands and nature reserves, mal-effects on wineries and horseracing studs, onerous conditions for fly-in/fly-out and drive-in/drive-out workers and deleterious effects on families, road and rail disruption, health effects from polluted air, effects of infrasound low frequency noise, dredging for ports and destruction around coral reef systems, coal chain power lines, etc.



Sharyn Munro

Rich Land, Wasteland is a major contribution to contemporary Australians' understanding of how the mining industry has seriously dented the wonder and beauty of the country's unique landscapes, as well as causing untold distress and hardship to individuals and communities.

Munro's documentation of events, people and places stands out not only as an instructive coverage of the main areas of conflict around Australia, but it also provides: a primer on the technical terms used daily in the industry; a lead into community fight-back approaches and the players involved; a slice of the attitudes of the industry participants; and a challenge to all governments to get fair dinkum about taming the beast.

The largely unasked question that arises is: having hocked themselves into a mining boom of pivotal proportions for its prosperity, can governments now, if they wanted to, untangle themselves? And in that process of untangling, in their dealings with local and foreign investors, will they face up to the challenge of transitioning all the way to a position of 'de-growth' (World Watch Institute), a Steady State Economy (Herman Daly/Geoff Mosley), 'Prosperity without Growth' (Tim Jackson), or to some such agenda that would see financial actors come off the mining treadmill?

Munro reports various initiatives, emanating from the writings of eminent scientists and leading entrepreneurs, and also from forward-thinking trade unionists, for alternatives to coal and for reducing the amount of power we use. She also introduces the reader to some 'democracy in the workplace' initiatives including for the establishment or spread of workers' co-operatives (see www.earthworkercooperative.com).

In a major piece of work, Munro urges: "We can be so much more than the world's quarry, our futures calculated by corporate coal. We need not be helpless to stop it. Speak up for the smart, sustainable and humane Australia we could be instead."

A longer version of this review was published in Social Policy Connections socialpolicyconnections.com.au/?p=4862

Greenwash: Big Brands and Carbon Scams

Guy Pearse

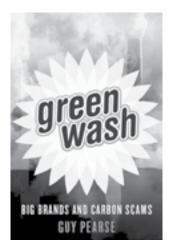
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Black Inc. Books blackincbooks.com/books/greenwash

Going green is the new black for big business. But how real is the climate-friendly revolution that's being advertised? In *Greenwash*, poacher turned gamekeeper Guy Pearse looks behind the corporate facade and lands well-argued blows against Nissan, Ford, BP ('Beyond Petroleum' – winner of



a Gold Medal from the American Marketing Association), the World Wildlife Fund (Earth Hour), Oprah, Leonardo DiCaprio, McDonald's and many, many others.

Greenwash reveals some common tricks. In several instances, firms adopt intensity targets (for example carbon dioxide per square foot of retail space) allowing them to massively expand their operations and increase their overall carbon footprint while claiming emissions are falling. Other tricks include firms that ignore the activities of their franchised operations, ignore emissions related to the raw materials needed for their products, fail to calculate the impact of the use of their products or simply ignore emissions outside their home countries.

Academic Clive Hamilton says: "Before I read *Greenwash* I thought I could no longer be shocked by the skulduggery of the marketers. How wrong I was."

More information: guypearse.com/?p=1, and themonthly. com.au/nation-reviewed-guy-pearse-greenwash--2646
A short extract from Greenwash is posted at abc.net.au/unleashed/4291190.html



Music Reviews

Patricia Clarke

Keep The Fires Burning

2003



"We don't want your evil power It's too evil for us We are the gentle people Of this land"

If Tamworth is regarded as the heart of Australian country music, then how does one describe the south-west Victorian 'Triangle', stretching from Lake Bolac, Warrnambool and the old Aboriginal Reserve at Framlingham?

Think of Shane Howard, Neil Murray and Archie Roach – three of the most highly respected songwriters in the country, all have been born or have lived in this part of the world. All too were born in the mid 1950s. All three have contributed stellar musical moments and all have released classic Australian songs. How does one top 'Solid Rock', 'My Island Home' and 'Took The Children Away' as the quintessential statements of living in this country?

Keep The Fires Burning easily stands with the best that the three above-mentioned artists have produced. All three also had a hand on this CD, with the album being produced by Howard with Roach and Murray adding backing vocals.

Keep the Fires Burning is full of songs and ballads probably honed and crafted around campfires on Gunditjmara/Kirrae Whurrong land. The tunes are so well rooted in the earth, that one can almost smell the eucalypt leaves wafting through the speakers as it plays. Patricia's voice is gentle and fragile, yet powerful in articulating the significance of the messages conveyed.

The songs also convey a sense of place, a sense of coming home to country and a feeling of deep spiritual connectedness with the earth. Perhaps these feelings could only come from an indigenous person. A person already grounded and deeply connected to their homelands.

Two songs on the album feature two of Patricia's sons, Crispian and Brett, who sing on a track each. 'Don't get lost in society, The rat race is not for me', warns Brett on *Our Land Till We Die*. The album was launched in 2003 at the Tarerer Festival held at Killarney on the south-west coast. I gave a copy of this album to a friend for his 50th birthday. "What did you think of the album?" I asked him some time later. "It's magnificent" was his emphatic reply.

In addition to her musicianship, Patricia Clarke is an artist, a book author and illustrator, and a lecturer in Education at Deakin University, Geelong, where she also coordinates the Koorie Intern Program.

More information and to order the CD: www.patriciaclarke.com.au

Friends of the Earth Australia contacts

National Liaison Officers

National Liaison Office (03) 9419 8700. phone:

address: PO Box 222, Fitzroy, Vic, 3065.

Cam Walker (Melbourne)

cam.walker@foe.org.au email:

0419 338047 phone:

Kim Stewart

email:

website:

email: kim.Stewart@foe.org.au

0413 397839 phone:

Tully McIntyre (Melbourne)

email: tully.mcintyre@foe.org.au

0410 388187 phone:

Membership issues, financial contributions

melissa.slattery@foe.org.au Freecall 1300 852 081 email: phone:

(03) 9418 8700 (Tues-Thurs)

LOCAL GROUPS

FoE Adelaide

c/- Conservation SA, address:

Level 1, 157 Franklin Street, Adelaide, SA 5000 adelaide.office@foe.org.au www.adelaide.foe.org.au

Clean Futures Collective (mining & energy collective) email: Shani shani.burdon@foe.org.au

0412 844 410 phone:

Reclaim the Food Chain (food and farming collective) meets 6pm, fourth Thursday of the month.

20 Burke St, Woolloongabba address:

Reverse Garbage).

PO Box 8227 postal:

Woolloongabba, Qld, 4102.

phone: (07) 3171 2255 email: office.brisbane@foe.org.au

www.brisbane.foe.org.au website:

wendy.flannery@gmail.com email: 0439 771 692 phone:

FoE Southwest WA

PO Box 6177,

South Bunbury, WA, 6230. Joan Jenkins (08) 9791 6621,

phone: 0428 389087 email: foeswa@gmail.com

Bridgetown Greenbushes Friends of the Forest

address:

PO Box 461, Bridgetown, WA, 6255 email. president@bgff.org.au website: www.bgff.org.au

FoE Melbourne

312 Smith St, Collingwood. address: postal:

PO Box 222, Fitzroy, 3065. (03) 9419 8700, 1300 852081 (freecall) phone:

(03) 9416 2081

foe@foe.org.au email:

www.melbourne.foe.org.au website:

brett@thesharehood.org 0432 918 150 (Brett Hennig) phone: Anti-nuclear & Clean Energy (ACE) Collective

ace@foe.org.au 0408 165735 (Zin Rain) email: phone:

Food co-op

(03) 9417 4382 phone:

(03) 9417 4564 phone:

Yes 2 Renewa

leigh.ewbank@foe.org.au

0406 316 176 (Leigh Ewbank (Melb)) phone:

cam.walker@foe.org.au email.

0419 338047 (Cam Walker (Melb)) phone:

FoE Kuranda

PO Box 795, Kuranda, Qld, 4881

info@foekuranda.org email: (07) 4093 8509 (Pat Daly) phone: www.foekuranda.org website:

postal: 19 Eve St, Erskineville, NSW, 2043

email: sydney@foe.org.au www.sydney.foe.org.au website: 0411 029172 (David McGill) phone: email: mcgill.david.a@gmail.com

National campaigns, active issues, projects and spokespeople **Murray-Darling Basin**

Carmel Flint (NSW)

carmelflint@tpg.com.au email:

Anti-Nuclear and Clean Energy (ACE):

Jim Green (Melbourne) email: jim.green@foe.org.au phone: 0417 318368 Robin Taubenfeld (Brisbane)

robintaubenfeld@hotmail.com email.

0411 118737 phone: Tully McIntyre (Melbourne) email: tully.mcintyre@foe.org.au

phone: 0410 388187 Climate Justice:

Cam Walker (Melbourne)

cam.walker@foe.org.au email: 0419 338047 phone:

Cam Walker (Melbourne) email: cam.walker@foe.org.au

0419 338047 phone: Drew Hutton (Brisbane)

drew.hutton@foe.org.au email: phone: 0428 487110

Coal campaign:

Shaun Murray (Melbourne)

shaun.murray@foe.org.au email:

Carbon trading

Ellen Roberts

email: ellen.roberts@foe.org.au

Beck Pearse

email: beck.pearse@foe.org.au

Indigenous Communities in Latin America Campaign (mining, hydro and forestry):

Marisol Salinas (Melbourne)

marisol.salinas@foe.org.au email:

0431 368606 phone:

Australian Indigenous Issues:

Indira Narayan

indira.narayan@foe.org.au email: **Murray-Darling Basin Plan:**

Cam Walker

cam.walker@foe.org.au email:

phone: 0419 338047

Food:

Louise Sales

louise.sales@foe.org.au email: phone: 0435 589579

Pacific Solidarity: Wendy Flannery

wendy.flannery@foe.org.au email:

phone: 0439 771692

Pesticides:

Anthony Amis (Melbourne)

anthonyamis@hotmail.com email:

Carbon Trading

- Julia , Ellen, Rebecca, Gareth ... could someone please help with one or more email and phone contacts ... fanx

Nanotechnology:

Louise Sales

email:

louise.sales@foe.org.au email:

phone: 0435 589579

Gregory Crocetti

gregory.crocetti@foe.org.au email:

0403 733628 phone: **South Melbourne Commons:**

address: 217-239 Montague St,

South Melbourne (cnr Bank St). smc.operations@foe.org.au

phone: 03 9682 5282, website: www.commons.org.au

Lynas Rare Earth Plant:

Tully McIntyre (Melbourne)

email: tully.mcintyre@foe.org.au 0410 388187 phone:

AFFILIATE MEMBERS

Food Irradiation Watch

postal: PO Box 5829

West End, Qld, 4101

foodirradiationwatch@yahoo.com.au email. www.foodirradiationinfo.org. website:

Tulele Peisa (PNG) 'sailing the waves on our own' website: www.tulelepeisa.org

Six Degrees Coal and Climate Campaign

A campaign initiative of FoE Brisbane Co-op Ltd. sixde6rees@gmail.com www.sixdegrees.org.au phone, fax, street and postal addresses shared with FoE Brisbane (see above).

Mukwano Australia

Supporting health care in organic farming communities in Uganda.

Samantha.Neal@dse.vic.gov.au www.mukwano-australia.org website: Katoomba-Leura Climate Action Now

George Winston

gwinston@aapt.com.au

Sustainable Energy Now (WA)

address: Perth. PO Box 341, West Perth WA 6872

Steve Gates 0400 870 887 phone: email: contact@sen.asn.au website: www.sen.asn.au

Reverse Garbage Co-op (Brisbane)

address: 20 Burke St, Woolloongabba.

PO Box 5626, postal: West End, Qld, 4101 (07) 3891 9744 phone.

info@reversegarbage.com.au email: www.reversegarbage.com.au website: Office days:Tues, Wed & Fri

In Our Nature is a not-for-profit organisation which is working on the Kitobo Colobus Project, located in southern Kenya.

Julian Brown email:

julian.brown20@yahoo.com

West Mallee Protection (SA) email: westmallee@gmail.com 0423 910492 (Breony Carbines)



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