

# chain. reaction

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The National Magazine of Friends of the Earth Australia

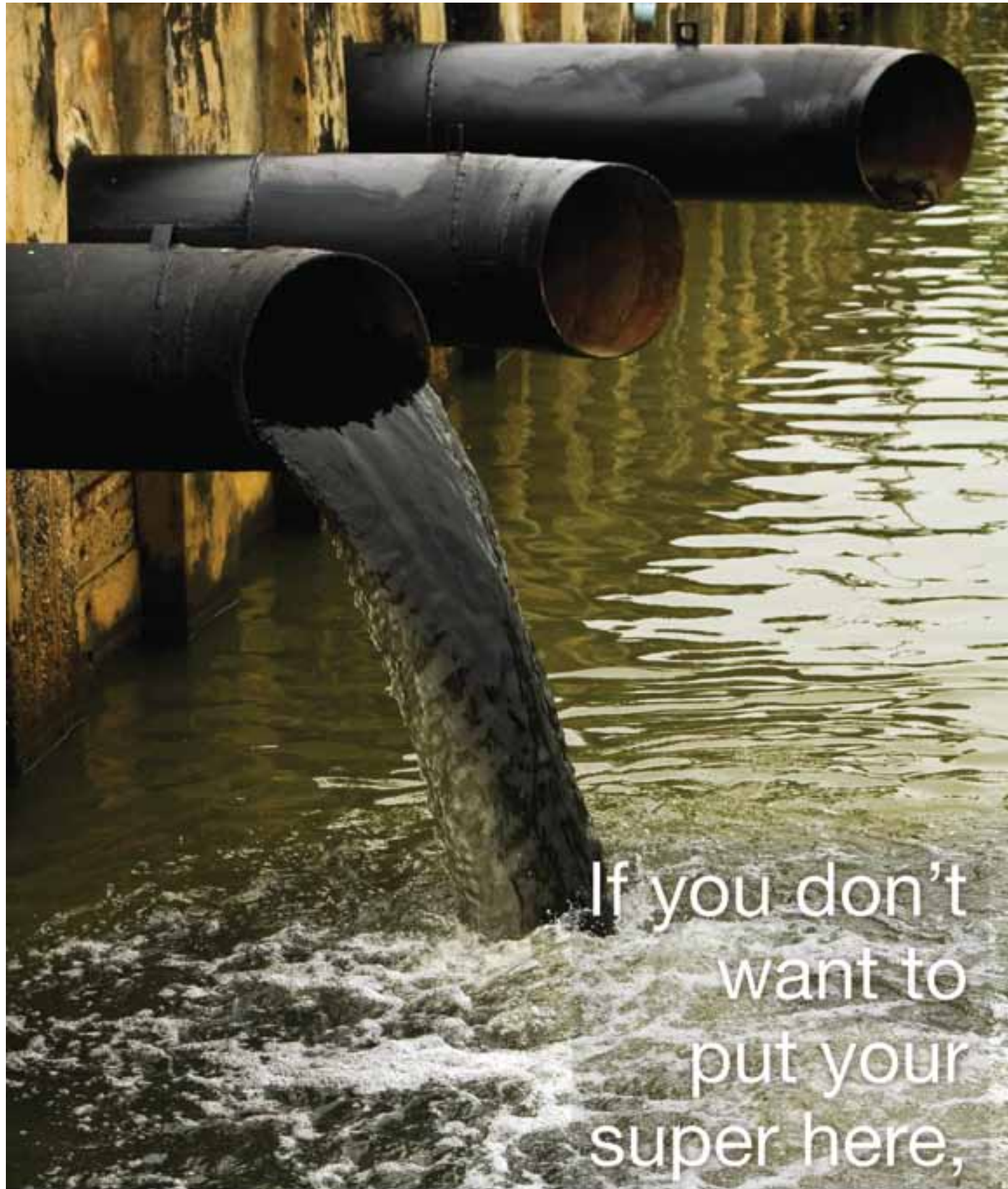
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## COAL, GAS, COAL SEAM GAS

- Exposing the great sunscreen cover-up
- Women, food and green jobs in China
- Maralinga – 60 years on
- James Price Point LNG controversy
- Wind powers mass hysteria
- Basin plan delivers a raw deal





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1

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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.*

*There is a monthly FoE Australia email newsletter – subscribe via the website: [www.foe.org.au](http://www.foe.org.au)*

*To financially support our work, please visit [foe.org.au/donate](http://foe.org.au/donate)*

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## Jono moves on from FoE

Jonathan La Nauze has just finished an 11-year stint as a campaigner with Friends of the Earth in Melbourne. As he starts work with the Australian Conservation Foundation, we want to acknowledge Jono's remarkable contribution.

Jono came into FoE through involvement in Indigenous solidarity activism, and started as a volunteer and then paid campaigner with the Barmah Millewa Collective (BMC). The BMC grew from the work of people like Pete Barker, who had responded to calls for support from the Yorta Yorta community in the Murray River country north of Melbourne. The backdrop to our emerging campaign to gain protection of the Barmah and Millewa Red Gum forests and wetlands was the ongoing Yorta Yorta struggle for recognition of their right to their traditional lands. The connected forests of Barmah (Victoria) and Millewa (in southern NSW) have long been considered the heartland of Yorta Yorta country. Their Native Title claim was slowly moving forward, and green and Indigenous groups had found common cause in the Dharnya Alliance.

In 2002, we formally launched the Barmah – Millewa Campaign as a collaboration between Yorta Yorta and FoE. Following a strong campaign, the Bracks ALP government gave an election promise to protect the forests

in national parks, pending the outcomes of an investigation by the Victorian Environment Assessment Council.

Jono played a key role in the long years of this successful campaign. Much of the campaign story is told in Chain Reaction #105 (April 2009), and the short version is that Yorta Yorta, FoE and other green groups were able to gain protection for close to 100,000 hectares of new national parks. Aboriginal joint management was included.

Apart from a few months exploring in Europe with his partner Ailsa, Jono committed a decade to the Red Gum campaign. For most of this time, I sat next to Jono in the FoE office in Collingwood, and watched him play all manner of roles: campaigner, trainer, media spokesperson, lobbyist and strategic thinker, networker and connector between groups.

But it wasn't all sitting at a desk. He put in a lot of time out on Country, building strong and lasting friendships with many in the Yorta Yorta community, monitoring logging, planning, holding rallies and actions. Huge amounts of time were logged in the 2006 state election, which saw the commitment from the ALP. There were 'road shows' through Northern Victoria, and the beginning of a campaign over the border into NSW, including the first direct action by conservationists in



Red Gum forests. As a boy from Albury, he brought his love for the River into all aspects of the campaign.

I cannot do justice to Jono's contribution. He became a pivotal person in the complex network of people, organisations and communities that lead to the creation of the new Red Gum Parks. He has been an incredible contributor to the development of FoE Melbourne and Australia. And he has been a driving force within the Forest Stewardship Council here in Australia.

More recently, he has become a person of great influence in the current national debate about the future of the Murray Darling Basin. Jono has brought a keen strategic eye to this new campaign area, helping to push the boundaries on what is needed, while 'moderate' politics kept seeking 'reasonable' outcomes.

Go well, Jono, we will miss you. FoE is stronger – and has some great victories – as a result of your efforts.

– Cam Walker





## Court win for Gladstone dredge protester

In early May, the Brisbane magistrates court supported the efforts of Gladstone local Mark Discoll in his stand defending the destructive dredging of the Gladstone Harbour in the Great Barrier Reef. Mark walked from court with no fine and no record, after being charged under the Transport Operations (Marine Safety) Act 1994.

Marking the last day of the UNESCO World Heritage Committee visit to Queensland in March 2012. Mark chained himself to a harbour dredge boat, shutting down the controversial development of the Coal Seam Gas LNG port facility on Curtis Island in Gladstone. Concerns include the industry's impact on the Great Barrier Reef and Gladstone Harbour.

Mark Discoll said: "I have grave concerns for Gladstone, the social and environmental impacts from this massive development is too high a price to pay. I have no regrets for the action that I took. We have already lost one industry - fishing - and our tourism industry is now at risk."

*More information:* <http://tiny.cc/99fxgw>

In June, UNESCO released a report on the state of the Great Barrier Reef. It is critical of the rapid coastal development driven by the resource boom, saying that it has the strong possibility to severely damage the ecological and economic value of the reef. The report is posted at: [whc.unesco.org/en/list/154/documents](http://whc.unesco.org/en/list/154/documents)

## FoE Adelaide's 'Feast of Film' festival

FoE Adelaide's fourth annual 'Feast of Film' festival - a cinematic celebration of good food and farming - will be held on Saturdays July 21, August 18 and September 15. Featured films include Queen of the Sun, The Bushman of Tambar, Murder Mouth, Growing Change, A Community of Gardeners, We Feed the World, and La Via Campesina in Movement. All funds raised support local and international projects for just and sustainable food and farming.

*Box Factory Community Centre, 59 Regent Street South, Adelaide, 4-7pm, tickets \$10-\$15 at the door, for more information contact [adelaide.office@foe.org.au](mailto:adelaide.office@foe.org.au), [www.facebook.com/foe.adelaide](http://www.facebook.com/foe.adelaide)*

## The cost of Baillieu's wind policy

In August 2011, the Baillieu government implemented new planning rules which place large sections of Victoria off-limits to wind farm developments through the creation of No Go zones, and set in place a two kilometre 'right of veto', whereby a single household can block any turbines within two kilometres of their home. Planning Minister Matthew Guy said he did not believe that the two kilometre set-back policy would stop developers investing in wind energy Victoria. However research by FoE suggests otherwise. In our updated report on the impacts of this policy, it is estimated that the costs are around \$887 million in lost investment, and 2,100 jobs that will now not be created.

*The report is posted at [yes2renewables.org](http://yes2renewables.org)*

## Pesticides and Melbourne's drinking water

In June, Friends of the Earth released a new report assessing the pesticide risks in the Melbourne Water supply network. Melbourne is often touted as having the best quality drinking water in the world, however approximately 1.5 million people in Melbourne's northern and western suburbs consume water from Sugarloaf Reservoir.

Part of Sugarloaf's supply is pumped from the Yarra River, downstream of some of the most intensively farmed (and sprayed) land in Australia. The report also suggests that the treatment process used at Sugarloaf

was never designed to filter out pesticides. Melbourne Water have had 31 positive detections for pesticides at the Sugarloaf off-take over the past two years and a study published in January 2011 revealed that over 40 pesticides were finding their way into streams in the Upper Yarra, possibly making it the Australia's most pesticide laden river.

*The June 2012 report, 'Issues Regarding Melbourne Drinking Water & Pesticides', was written by Anthony Amis. It is posted at <http://tiny.cc/aimjgw>*

Yarra River Pumps in Yering Gorge.



## Vic parliament report into mining

A Victorian parliamentary committee report into 'greenfields' mineral developments was released in May. While green groups have expressed disappointment that it has failed to deliver a moratorium on further exploration for coal and coal seam gas, there is a significant shift in the governments approach to CSG. Three recommendations out of 25 contain some good news for rural people and environmentalists concerned about the spread of the fossil fuel industry:

- a proposed strategic land use policy framework to better manage the competing needs of agriculture and mining;
- a proposal that the government create a process to ensure open consultation with communities regarding future coal seam gas exploration and development; and
- better notification requirements to inform land owners about intended exploration activity.

*A joint media release by FoE, the Environmental Defenders Office and Environment Victoria is posted at [melbourne.foe.org.au/?q=node/1154](http://melbourne.foe.org.au/?q=node/1154)*

FoE and Quit Coal launched a campaign for a moratorium on new coal and gas earlier this year. Over 50 groups have now joined the call with the most recent support coming from the City of Port Phillip. More information is posted at [melbourne.foe.org.au/?q=node/1124](http://melbourne.foe.org.au/?q=node/1124)

## Tasmania's drinking water

Friends of the Earth has also launched a brief report on the state of Tasmania's drinking water. The report is part of a longer term strategy to tie in research from across Australia regarding drinking water issues. The information was sourced from three Right to Information requests from Southern Water, Ben Lomond Water and Cradle Mountain Water. In terms of breaches to the Australian drinking water guidelines, it would appear that the major concern is relatively high levels of chlorine disinfection by-products from four communities in southern Tasmania.

*The report is posted at <http://tiny.cc/xcbxgw>*

## United Nations Association conference

The annual national conference of the United Nations Association of Australia will be held in Brisbane from 22–24 August. The Climate Frontlines collective of FoE Brisbane is coordinating the roundtable on the opening day on the topic, 'Climate Change and Sustainable Development in the Pacific'. The event will feature a screening of the film, 'There Once Was An Island', as well as several Pacific Islander contributors. For more information contact [wendy.flannery@gmail.com](mailto:wendy.flannery@gmail.com)

## South Melbourne Commons

The South Melbourne Commons, administered by Friends of the Earth, has made much progress since its opening in December last year. One of our recent developments has been the installation of solar panels, a 5 kw array of clean, green electricity to power the Commons. This is just one of a number of sustainability projects being undertaken to transform the old Galilee Primary School into a sustainable community hub. The solar panels complement our existing hot water solar system.

Earlier this year, the Commons appeared on Network Seven's Coxy's Big Break, a fantastic way to boost public awareness about our project. You can find the segment on YouTube by searching for "South Melbourne Commons on Coxy's Big Break".

Commons is a great meeting place and offers discounted hire rates for community and not-for-profit groups.

## Big Ask membership drive

FoE Melbourne has launched our 'Big Ask' membership drive, as we urgently need to build our members/ supporter base to keep all our campaigns going at their current capacity. Annual Membership starts from as little as \$40 – see [shop.foe.org.au/membership-foe](http://shop.foe.org.au/membership-foe). Or you can join as an Active Friend and make monthly, tax-deductible donation – see [givenow.com.au/foemelbourne](http://givenow.com.au/foemelbourne)

## The myth of the 'professional protester'

Shani Tager – a campaigner with the Six Degrees Coal and Climate Campaign at Friends of the Earth Brisbane – has written an insightful article on accusations directed at so-called urban 'professional protesters' with the aim of delegitimising them and splitting important urban/rural alliances forming around Coal Seam Gas opposition and other issues.

The article is posted at: [brisbane.foe.org.au/content/myth-professional-protester](http://brisbane.foe.org.au/content/myth-professional-protester)



On June 21 in Sydney, mining activists dressed as clowns protested outside the Sydney office of Foreign Minister Bob Carr to highlight the 'joke' of Australia's mining obsession. They delivered an open letter to Senator Carr condemning Australia's focus on mining at the Rio+20 UN environmental summit. The action generated critical and defensive public comments by the Department of Foreign Affairs and Trade, and the NSW Minerals Council. More information: [sydney.foe.org.au](http://sydney.foe.org.au)





# 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.*

## Fukushima Poka-Poka Project

FoE Japan launched the Poka-Poka Project in early 2012 to help children, pregnant women, and their family members – more than 1,600 people in total between January and March – stay in Tsuchiyu Hot Springs to spend time away from their homes in the contaminated Watar District in Fukushima City. The second phase of the project began in May.

*More information and to donate:*  
[foejapan.org/en/news/120419.html](http://foejapan.org/en/news/120419.html)

## Attacks on communities resisting dam in Guatemala

FoE International strongly condemns the violence and repression against residents of the Santa Cruz Barillas in the Department of Huehuetenango, Guatemala, because of their opposition to the operations of the Spanish company Hydro Santa Cruz.

*More information:* [tiny.cc/0qr4gw](http://tiny.cc/0qr4gw)

## Reclaim the UN from corporate capture

A new FoE International report, 'Reclaim the UN from Corporate Capture', presents case studies that reveal how UN policies and agencies are excessively influenced by the corporate sector, for instance oil company Shell, Dow Chemical, Monsanto, the Coca Cola company, and the Chinese oil giant PetroChina.

*The report is posted at:*  
[tiny.cc/ijw4gw](http://tiny.cc/ijw4gw)

## Friends of the Earth International Online

Web: [www.foei.org](http://www.foei.org)

Youtube channel: [www.youtube.com/user/FriendsoftheEarthInt](http://www.youtube.com/user/FriendsoftheEarthInt)

Action alerts: [www.foei.org/en/get-involved/take-action](http://www.foei.org/en/get-involved/take-action)

Subscribe to 'Voices', the bimonthly email newsletter of FoE International, at: [www.foei.org/en/get-involved/voices](http://www.foei.org/en/get-involved/voices)

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

## Japanese nuclear evacuation zone

FoE Japan has been working with other NGOs and citizens in the district of Watari to pressure the government and TEPCO to provide funding for people who want to relocate. The government did not include Watari District in an official evacuation zone, although broad areas of the district recorded levels of nuclear contamination equalling and even exceeding the permissible limit that the government used to evacuate residents in other municipalities.

*A FoE Japan report, 'Citizen's Movement for Establishing the Rights to Evacuate: Watari, Fukushima and Beyond', provides details on the campaign. It is posted at* [foejapan.org/en/news/120308.html](http://foejapan.org/en/news/120308.html)

## Combating Monsanto

A FoE International report shows that around the world small-holder and organic farmers, local communities and social movements are increasingly resisting and rejecting Monsanto and the agro-industrial model that it represents. The report, jointly produced by FoE International, La Via Campesina and Combat Monsanto provides snapshots of frontline struggles against Monsanto and other agrochemical corporations pushing genetically modified (GM) crops onto farmers and into the environment.

*The report is posted at:* [tiny.cc/2yq4gw](http://tiny.cc/2yq4gw)

## Murder of fishermen in Brazil

On June 29, a FoE International delegation joined a demonstration in Rio de Janeiro to denounce the brutal murder of two fishermen from the Guanabara Bay.

The victims were Almir Nogueira de Amorim and João Luiz Telles Penetra, fishermen and members of Homens e Mulheres do Mar Association (AHOMAR) in Guanabara Bay.

On June 14, FoE International chair Nnimmo Bassey took part in a 'toxic tour' of Guanabara Bay near Rio de Janeiro where AHOMAR has been denouncing since 2007 the crimes and rights violations which took place during the construction of the Rio de Janeiro Petrochemical Complex, one of the largest investments in the history of Brazilian energy giant Petrobras.

*More information:* [tiny.cc/pxv4gw](http://tiny.cc/pxv4gw)

## Call on Norway pension fund to divest in Shell

28 Right Livelihood Award laureates have written to the Norway Government Pension Fund asking it to divest all its holdings in Shell due to the severe environmental harm caused by the company's negligence in the Niger Delta, Nigeria. Please join the laureates, including FoE International's chair Nnimmo Bassey, in calling for the pension fund to act now. Visit: [tiny.cc/ter4gw](http://tiny.cc/ter4gw)



# Rio+20 summit fails the planet and its people

FoE International condemned world leaders for selling out people and the planet in their Rio+20 declaration on June 22. The non-binding declaration falls well short of the action needed to tackle the planetary crisis, and does not include any of the real solutions demanded by the people at the alternative People's Summit.

FoE International chair Nnimmo Bassey said: "Once again corporate polluters have held UN decision-making hostage to furthering their economic interests, at the expense of peoples well-being and the planet. But real solutions to the crises exist and were presented by the alternative People's Summit. They include economic justice, climate justice, and food sovereignty."

Pressure from civil society movements and developing countries prevented world leaders from agreeing an even worse Rio+20 declaration that would have taken the world even further backwards than we were 20 years ago.

The People's Summit was supported by over 200 civil society groups. The solutions promoted at the People's Summit include: small scale and local renewable energy production; investing in energy efficiency; shifting from export oriented large scale food production to food sovereignty to serve local food needs; implementing a global financial transaction tax; and implementing internationally binding rules for companies and sanctions if they violate them.

FoE International's analysis of key issues on the table at the Rio+20 summit included the following:

## Green economy:

The European Union block tried to impose the corporate-driven green economy agenda – which is a front for our broken and unfair economic system and for selling out nature – as the main tool for achieving sustainable development. Civil society and developing countries managed to prevent this agenda from being adopted and partially stopped its imposition in the Rio+20 declaration, allowing, for now, individual countries to continue define their own vision of what a truly fair and sustainable economy might look like.

Unfortunately the declaration does not include any recognition that developed

countries, whose unsustainable consumption patterns caused the bulk of our environmental problems, should take the lead on sustainable consumption and production. The declaration also fails to recognise that multinational corporations are a main cause of the multiple crises the world is facing.

## The Rio Principles:

The Rio+20 declaration reaffirms the so-called 'Rio Principles' first agreed at the 1992 Earth Summit but does not go any further. The declaration ignores the need of the industrialised world to repay its ecological debt through provision of new and additional public finance and through technology transfer. The declaration does not tackle the need to phase out fossil fuels through a just transition to clean and affordable energy.

## Corporate capture of the UN:

The Rio+20 declaration includes a voluntary approach to sustainability reporting, which is wholly insufficient to address corporate abuses and crimes. The declaration states that governments should support initiatives including "promoting the contribution of the private sector" and the only reference to mobilising public finance was made in connection to public-private partnerships.

The Rio+20 declaration does not include any of the steps raised in a statement issued on June 4 signed by more than 400 NGOs. The steps that should be taken include:

- limiting the privileged status that business currently has in official UN negotiations and policy-making;
- limits on the role of the "business and industry" major group;
- disclosure of existing relations and links between the UN with the private sector;
- a code of conduct for UN officials;
- a review of existing partnerships with corporates and trade associations and a halt to entering into any new such partnerships;
- increased transparency around lobbying; and
- the establishment of a legally binding framework to hold companies accountable to environmental, human rights and labour rights law.



*More information:*

*Rio People's Summit: [rio20.net/en](http://rio20.net/en)*

*FoE International: [foei.org/en/what-we-do/rio-20](http://foei.org/en/what-we-do/rio-20)*

*UN Rio+20 Summit: [uncsd2012.org/rio20/index.html](http://uncsd2012.org/rio20/index.html)*

## Land grabbing in Uganda

'Land, life and justice', a report by FoE Uganda and FoE International, investigates cases of land grabbing in Uganda, focusing on oil palm plantations in Kalangala, Lake Victoria. It assesses the impacts on rural communities and on the local environment, and questions who benefits from these projects.

*The report is posted at: [tiny.cc/lpu4gw](http://tiny.cc/lpu4gw)*

*To write or just sign an e-letter to the District Council of Kalangala and the Government of Uganda, visit: [action.foei.org/page/speakout](http://action.foei.org/page/speakout)*



## World wind power reaches new record in 2011

Wind energy developers installed a record 41,000 megawatts of electricity-generating capacity in 2011, bringing the world total to 238,000 megawatts. With more than 80 countries now harnessing the wind, there is enough installed wind power capacity worldwide to meet the residential electricity needs of 380 million people at the European level of consumption. China led all countries in annual wind power gains for the third straight year, installing 18,000 megawatts for a total wind capacity of 63,000 megawatts.

*More information: [earth-policy.org/indicators/C49/wind\\_power\\_2012](http://earth-policy.org/indicators/C49/wind_power_2012)*

## Solar intermittency: Australia's clean energy challenge

Intermittency is one of the biggest barriers to the uptake of solar energy, however CSIRO and partners are now on the path to solving the challenge with the completion of a world-first analysis of solar intermittency in the Australian context. The study provides a greater understanding of the effects of solar intermittency on electricity grids, directly addressing the concerns of market and grid operators, solar installers and investors. The project found that:

With knowledge and tools, such as solar forecasting and energy management, CSIRO can provide the information required to manage solar intermittency.

Solar intermittency is not uniform; different sites, regions and countries require individual solutions.

If large amounts of solar energy are to be used as a power source we need a flexible grid designed with renewable energy sources in mind.

*The report is posted at: [csiro.au/science/Solar-Intermittency-Report](http://csiro.au/science/Solar-Intermittency-Report)*

## Hunting in NSW National Parks

NSW residents – please take a minute to write to your local minister to express concern about Premier O'Farrell's announcement that hunting will be allowed in NSW national parks. The Premier's plan opens up 79 national parks and reserves, covering close to three million hectares or 40% of all NSW parks and reserves. You can send an online letter at: [nohunting.wildwalks.com](http://nohunting.wildwalks.com)

## Report on women human rights defenders

The Global Report on the Situation of Women Human Rights Defenders is an initiative of the Women Human Rights Defenders International Coalition to articulate the challenges faced by women human rights defenders and how best to respond to them. The use of 43 cases studies illuminates trends and experiences.

*The report is posted at [defendingwomen-defendingrights.org](http://defendingwomen-defendingrights.org)*

## Vale voted world's worst multinational company

Vale, the Brazilian mining company that operates in 38 countries and is the largest iron-ore mining corporation in the world, came first out of six finalists for the Public Eye Award, which annually elects the worst company in the world by popular vote. Vale's 70-year history is tarnished by repeated human rights abuses, inhumane working conditions, pillaging of the public heritage and the ruthless exploitation of nature. TEPCO, owner of the Fukushima Daiichi nuclear power plant, came second, followed by Samsung, Barclays Bank, Syngenta and Freeport.

*More information: [www.publiceye.ch](http://www.publiceye.ch)*

## Marine sanctuaries

The federal government announced in June that it will establish the world's largest national network of marine reserves. The International Fund for Animal Welfare supported the announcement but expressed concerns. Campaigner Matthew Collis said: "The Environment Department has had its hands tied throughout the whole process in any attempts to address the threats to marine life from the oil and gas industry. The network, for the most part, addresses areas only where the industry doesn't operate or isn't looking to operate in the future."

The Centre for Policy Development has released a report on the economic footprint of the unique marine resources to be protected by the proposed Commonwealth Marine Reserves Network. The report, 'Preserving Our Marine Wealth', is posted at [cpd.org.au/2012/06/preserving-our-marine-wealth](http://cpd.org.au/2012/06/preserving-our-marine-wealth)

## But ... green energy alone won't save the Earth

A study by Richard York of the University of Oregon finds that rather than displacing fossil fuels, green energy sources have proven to be mostly additive. York found that on average each unit of new energy from non-fossil-fuel sources displaced less than a quarter of a unit of energy use from fossil-fuel sources.

Why don't the new sources replace the old to a greater extent? York identifies two key reasons: the inertia of a huge existing fossil-fuel infrastructure, and the power and influence of the coal and oil corporations. He states: "The most effective strategy for curbing carbon emissions is likely to be one that aims to not only develop non-fossil energy sources, but also to find ways to alter political and economic contexts so that fossil-fuel energy is more easily displaced and to curtail the growth in energy consumption as much as possible."

*More information: [tiny.cc/pbyywg](http://tiny.cc/pbyywg)*





## Lynas defamation action against residents group

Lynas has been accused of attempting to gag free speech with its defamation action against a residents group opposed to the company's rare earth processing plant in Malaysia. Lynas wants to move 33,000 tonnes per annum of rare earth concentrates from its mine through the port of Fremantle in Western Australia to the port of Kuantan in Malaysia to its hazardous, energy intensive and highly controversial processing plant, the Lynas Advanced Materials Plant.

*More information: [stoplynas.org](http://stoplynas.org) and [www.savemalaysia-stoplynas.blogspot.com.au](http://www.savemalaysia-stoplynas.blogspot.com.au)*

## Clean energy cut carbon emissions in 2011

Renewable energy has helped Australia to cut its total carbon emissions for the second year running, according to figures published by the federal government. Clean Energy Council acting Chief Executive Kane Thornton said the analysis from the Australian National Greenhouse Accounts showed that overall greenhouse emissions had dropped about one per cent in the year to September 2011, largely led by the electricity sector.

Thornton said: "Electricity emissions dropped 3.2 per cent during this period. Hydroelectric power was up just over 10 per cent due to the excellent rainfall in key hydro areas, while coal and gas generation both dropped. Better energy efficiency and the increased use of technologies such as solar power, wind power and solar hot water were some of the factors that the government said contributed to the strong result."

*[www.cleanenergycouncil.org.au](http://www.cleanenergycouncil.org.au)*

## Economic benefits of wind power

The Clean Energy Council launched a report in June into the many economic benefits of wind power, particularly for regional communities. It's the first time this information has been brought together, and it shows substantial benefits for the towns and regions around wind farms.

*The report, 'Wind Farm Investment, Employment and Carbon Abatement', is posted at [cleanenergycouncil.org.au/cec/misc/gwd](http://cleanenergycouncil.org.au/cec/misc/gwd)*

## Mining industry subsidies

THE federal government gives just over \$4 billion in direct subsidies to mining companies each year, mainly in the form of cheap fuel and tax breaks for building roads and railways, a report by the Australia Institute states. The biggest single subsidy comes in the form of fuel-tax credits, formerly named the diesel fuel rebate, which were valued at \$1.89 billion in 2009-10. The Australia Institute report only covers federal government subsidies, meaning that the true figure would be higher if state subsidies were taken into account.

*The report, 'Pouring Fuel on the Fire', is posted at [www.tai.org.au](http://www.tai.org.au)*

## Bike Futures Conference

The fourth annual Bike Futures conference will be held in Melbourne on October 18-19. Workshop themes for the conference will include: new and innovative bicycle treatments, bicycles and public transport, motor vehicle speeds, bike planning, shared paths and spaces, cycle tourism and bike separation.

*More information: [bikefutures.com.au](http://bikefutures.com.au)*

## Australia seventh-worst polluter

WWF's Living Planet Report ranks the world's biggest polluters and puts Australia in seventh place. The world's top 10 polluters: Qatar, Kuwait, United Arab Emirates, Denmark, Belgium, United States, Australia, Canada, Netherlands, Ireland. The results were calculated by comparing renewable resources consumed against the Earth's regenerative capacity. The report found that high-income countries have an ecological footprint on average five times that of low-income ones.

*[wwf.panda.org/about\\_our\\_earth/all\\_publications/living\\_planet\\_report](http://wwf.panda.org/about_our_earth/all_publications/living_planet_report)*



Tilman Ruff

## Peacenik medical scientist Tilman Ruff honoured

Associate Professor Tilman Ruff, former President of the Medical Association for Prevention of War, currently Australian Chair of the International Campaign to Abolish Nuclear Weapons, was awarded a 'Member (AM) in the General Division of the Order of Australia' in the Queen's Birthday 2012 Honours List. The AM was for 'service to the promotion of peace as an advocate for the abolition of nuclear weapons, and to public health through the promotion of immunisation programs in the South East Asia-Pacific region'. Tilman has been active, and effective, in the campaign against nuclear weapons continuously since his student days.

# Coal, Gas & Coal Seam Gas

Cam Walker

This edition of *Chain Reaction* features several articles on the campaigns against coal seam gas (CSG) in eastern Australia.

The first one, by Friends of the Earth campaigner Drew Hutton, describes the campaign that has seen farmers and environmentalists join together to forge a strong alliance aimed at stopping the spread of CSG. A fundamental element of the Lock the Gate (LTG) alliance is the call for land owners to 'lock the gate' and refuse access to mining companies.

The second comes from community campaigner Aidan Ricketts. Aidan highlights the evolution of the 'lock the gate' model into a community-building initiative with the 'gasfield free' organising model. Aidan highlights the fact that personal action and empowerment and enhanced connections between neighbours is a positive end in itself as people organise to protect their 'patch' from mining companies.

The third is from Victoria, where the CSG industry does not yet have any commercial operations. Rural communities are organising pre-emptively in order to head off a threat from a range of fossil fuel projects including new coal mining, CSG and Tight Gas. As in the northern states, new alliances are being formed between farmers, regional communities, and urban-based environmentalists.

There is no doubt that we are witnessing the rise of a new political force in Australia, one that is beginning to shape national debate on energy, food, and trade. It is influencing state elections and has helped drive the creation of at least one political party.

These are new manifestations of political action and, in many ways, have a lot in common with the 'green bans' and socially engaged environmental politics of the 1970s: people joining together and finding common cause in spite of their various differences. While the evolution of environmental politics saw it move strongly into middle-class reformism in the decades from the early 1980s, Lock the Gate and other parallel movements – including the struggle against the gas hub planned for the Kimberley – are more similar to the green bans than the professional 'insider' politics used by most environmental NGOs.

Whereas 'greens' and 'farmers' have often been pitted against each other, for instance in the campaign to end broad acre land clearing in Queensland, this new campaign starts with common ground: water, landscape, connection to place and Country, food production and security, the role of corporations and so on. There are multiple points of connection, which makes this campaign even stronger and marks a shift in the 'framing' of environmental campaigns towards the traditional terrain of the Right: focusing on values and community.





While this type of campaigning has existed through the last 30 years – the Jabiluka campaign being a classic example – it has not been the dominant operating mode for the environmental movement. In fact, it can be argued that the direct action arm of the climate movement, with its tendency to focus on coal power stations, mines and other infrastructure, had re-created the class conflict that existed in the forests campaigns from the 1980s onwards. Lock the Gate offers the chance for the movement to recreate itself with different primary targets – governments and corporations – and away from a focus on specific workers or infrastructure.

There are similarities with the 1990s, where a major community mobilisation that occurred across Australia was driven by anger at government policy, and shaped by right-wing political movements like Pauline Hanson's One Nation.

What is different this time is the strong presence of progressive activists, political thinking and strategies. While Alan Jones is vocal on the issue, the movement itself is a fascinating collection of traditional green activists, seasoned rural campaigners, conservative voters, and many newcomers to politics who have been mobilised by immediate threats to their patch. The 'CSG free community' model, in particular, is a great example of old-fashioned community organising that has its roots in 1990s North Coast forest campaigning.

With the CSG and other unconventional gas industries continuing to spread their influence across much of Australia, and as the stakes continue to rise, this debate will become more and more about what type of future pathway Australia will take. While there is a prominent cultural and class divide over the question of action on climate change and attitudes to the carbon tax, the campaign against CSG cuts across this divide, and allows Australians of many political persuasions to find common cause in care for land and water, concern for economy, and opposition to corporations. It will only get more interesting in months and years to come.

## CSG, Tight Gas, Shale Gas

Like many parts of the world, Australia is experiencing a major expansion in exploration for, and production of, 'unconventional' gases.

Historically, conventional natural gas deposits have been the most practical and easiest deposits to mine. However, as demand grows and known reserves become depleted, corporations have sought to access new forms of fossil fuels.

As technology and geological knowledge advance, unconventional natural gas deposits are beginning to make up an increasingly large percentage of the supply picture.

There is no set definition of what constitutes 'unconventional' gas, and it is subject to change because new technological advances or processes can mean specific gases can become 'conventional'. In the broadest sense, unconventional natural gas is gas that is more difficult or less economical to extract, usually because the technology to reach it has not been developed fully, or is too expensive to deploy.



Generally, these gases are seen as being:

Deep natural gas that exists in deposits very far underground, beyond 'conventional' drilling depths.

Tight natural gas, also called Tight Gas, stuck in a very tight formation in hard rock, sandstone or limestone. Several techniques exist to extract the gas, including fracturing and acidising.

Shale gas – shale is a very fine-grained sedimentary rock, which is easily broken into thin, parallel layers.

Coalbed Methane (or Coal Seam Gas) – many coal seams also contain natural gas, either within the seam itself or the surrounding rock.



A NSW protest against coal seam gas mining.  
Photo from econews.com.au

## CSG fracking chemicals not tested for safety

A report by the National Toxics Network finds that of 23 chemicals used in the drilling and extraction of coal seam gas (CSG) in Australia, only two have ever been assessed by Australia's industrial chemicals regulator.

National Toxics Network is calling on state and federal governments to urgently introduce a moratorium on all drilling and fracking chemicals until they have been independently assessed by the federal regulator, the National Industrial Chemicals Notification and Assessment Scheme.

"Constituents of fracking fluids are often considered 'trade secrets' and not revealed. Even regulators are left in the dark," said Dr Mariann Lloyd-Smith, lead author of the report.

"Risk assessments for specific CSG projects in Queensland lacked basic information on the chemicals. The ones we were able to identify concerned us because of their significant potential to cause damage to the environment and human health. Some were linked with cancer and birth defects, while others damaged the hormone system of living things and affected aquatic species at very low levels.

"Fracking chemicals are complex mixtures of different chemicals which increases their risks. They are being used in very large volumes and unknown concentrations for purposes they were never intended for," Dr Lloyd-Smith said.

Despite industry claims that fracking chemicals are 'only used in small quantities' and are all 'food grade chemicals

used in household chemicals', National Toxics Network has discovered that hazardous chemicals such as ethylene glycol, formamide, naphthalene, ethoxylated nonylphenol and sodium persulfate are commonly used in fracking mixtures.

To give an idea of the quantities involved, in one Queensland proposed coal seam gas operation it was reported that 18,500 kgs of additives were to be used in each well during the fracturing process and that up to 40% of the fracking fluids would remain in the formations.

"That's a very large quantity of chemicals and they have to go somewhere. Whether they stay underground or they are bought back to the surface and placed in evaporation ponds, there are significant risks of pollution to waterways, the atmosphere and surrounding communities," Dr Lloyd-Smith said.

"By allowing these chemicals to go unchecked, it effectively gives the CSG industry a green light to pollute. With such rapid expansion of the CSG industry expected, Governments must intervene to ensure the industry does not cause irreversible pollution."

*The report, 'Hydraulic Fracturing in Coal Seam Gas Mining: The Risks to Our Health, Communities, Environment and Climate', is posted at [ntn.org.au/category/stop-csg](http://ntn.org.au/category/stop-csg)*



# Extending the life of coal

In Queensland, a significant part of the struggle is against coal production for export. Additionally, a growing number of coal proponents are advocating gas-from-coal processes. The following is a quick summary of some of the technologies currently being proposed.

## Coal drying

The coal technology company Exergen is the main proponent of experimental brown coal drying in Victoria. However, this technology is still unproven on a commercial scale. The process that Exergen has developed involves drilling an eight metre wide hole one kilometre deep and using a high pressure underground heat and chemical reactor to 'dehydrate' the coal.

For each tonne of dried coal produced, approximately 1100 to 1800 litres of polluted water have to be disposed of. If Exergen's plan to export 12 million tonnes of dried coal from the Port of Hastings were to proceed, this would result in the production of approximately 13-22 gegalitres of polluted water from the drying process alone. This water will contain high levels of salt, carbolic acid and ammonia.

Exergen's process would also use a significant amount of energy (with its own greenhouse gas emissions) and produce other contaminants that will need to be treated with hazardous chemicals to be safely stored or reused for heating. Exergen claims they will dispose of the carbon emissions in underground reservoirs; a potentially dangerous and unproven practice.

Another major exponent of coal drying technology is the curiously named Environmental Clean Technology (ECT). ECT's coal drying process involves mechanically kneading the coal to extract the water. Similar concerns exist with the volume of waste water produced from this process. In addition, in October last year a 380 tonne batch of coal spontaneously ignited in a smouldering fire that required 15 fire units to bring under control. ECT described this as "a small, contained incident".

## Underground Coal Gasification (UCG)

This process essentially involves igniting a coal seam at a depth of least 100m underground and pumping out the gas that is released as a result. UGC avoids the need for surface mining and leaves combustion waste underground.

UCG is another experimental technology where oxidants are injected into a coal seam in order to convert the coal to gas while still inside the coal seam, rather than extracting it first. The Department of Environment Resource Management recently had to shut down a UCG project by Cougar

Energy in Queensland, after the discovery that local bores had become polluted with carcinogenic chemicals such as benzene and toluene. Farmers in the area are unable to use the bores anymore. The company didn't notify the department until two months after it became aware of the contamination.

UCG threatens the contamination of vast quantities of groundwater with organic and often toxic materials including BTEX compounds (benzene, toluene, ethylbenzene, and xylenes), phenols, and aromatics (e.g., naphthalene), as well as gases (e.g. carbon monoxide and hydrogen sulfide) which will remain in the underground chamber after gasification and therefore are likely to leach into the ground water if not contained by rock.

According to independent research, the chemical phenol leachate is regarded as one of the most significant environmental hazards due to its high water solubility and high reactivity to gasification.

## Underground Coal to Liquid (UCTL)

The UCTL process involves drilling to depths of 50m and using high-pressure hot water and alkaline metal catalysts to liquefy the brown coal seam and extract a 'syncrude' liquid for further refinement into oil and petroleum products.

The major risks of UCTL are:

It leaves coal ash and heavy metals in the ground. There is a significant risk of these leaching into the surrounding aquifers, particularly if any subsidence of the resultant reaction zone cavity occurs (as is the case with UCG).

The process itself emits significant amounts of greenhouse gases.

It is a new process, untested anywhere else in the world.

## Biogenic Methane Enhancement

Melbourne-based company Regal Resources has begun experimentation with another technology called Biogenic Methane Enhancement (BME) at Oak Park, west of Melbourne. This is a form of methane extraction that artificially stimulates microbes and bacteria to rapidly digest and convert underground coal to gas, a process that normally takes hundreds of years. This is highly experimental and has never been used commercially before.

'Nutrients' and other chemicals are also used to artificially accelerate the process. The chemicals used in a similar process in the US include ammonium chloride, acetate, sodium phosphate, sodium bromide, potassium chloride, cobalt chloride, and nickel chloride, some of which are known carcinogens.

# Lock the Gate unites cockies, blockies, croppers and greenies

Drew Hutton

I have been copping some flak lately from my Green or left-wing friends for being seen talking about coal and coal seam gas on public platforms with such well-known political conservatives as Alan Jones and Bob Katter. These people tell me they won't come to meetings or actions being organised by Lock the Gate while we mix with such people. My response to them is two-fold.

First, demanding that Greens such as me campaign only with people who share our politics or cultural attitudes is the same as saying we don't want to win. Our opponents – the coal and coal seam gas companies – are among the biggest and most powerful multinational corporations on the planet and they have the ear of both government and opposition. We can only achieve our objectives by forming strategic alliances with those who agree that irresponsible resource extraction represents a very serious threat to our land, our water and our communities.

Therefore the Lock the Gate movement is an alliance between progressives and conservatives, left and right, city and country, farmers and environmentalists.

However, the issue goes deeper than this. Rural Australia faces the prospect of the most radical transformation it has experienced since the expansion of the pastoral frontier in the 19th century with the expansion of open cut coal mining and the development of coal seam gas. Whole regions of rural Australia (wherever there is a coal seam) will be turned into either a lunar landscape by open cut coal mining or a spider web of gas wells, pipelines, service roads, holding ponds, compressor stations, reverse osmosis plants and other pieces of large industrial infrastructure associated with coal seam gas.

As well, thousands of hectares of native vegetation will be cleared to make way for the thousands of kilometres of pipeline corridors, fragmenting precious bushland corridors and endangering many plant and animal species. At the end of the export coal seam gas project – the port of Gladstone - the dredging of millions of cubic metres of soil is undoubtedly contributing to the ecosystem collapse currently being seen in the harbour while world heritage values of the Great Barrier Reef are being threatened by the building of up to five LNG plants on Curtis Island and the

new or greatly expanded coal ports along the Queensland coastline and the tripling of the state's coal exports.

When people hear this, they don't ask themselves whether they are Labor, Green or Liberal; their reaction is dependent on whether they love the country or merely see it as the source of a quick buck. The politics of the 21st century and forms of social contestation will be more and more dominated by how we decide to use natural resources and traditional political loyalties will not be much of a guide to this.

*'The new face of resistance to environmental vandalism does not have its epicentre in the inner suburbs of our major cities'*

## The new face of resistance

The new face of resistance to environmental vandalism – the Lock the Gate Alliance – does not have its epicentre in the inner suburbs of our major cities; it is in such regions as the Darling Downs and the Scenic Rim of Queensland and the Northern Rivers, Liverpool Plains and Hunter Valley of New South Wales. Of course, they will receive a lot of support from the cities because, historically, Australians might live in cities but their hearts are in the bush.

Another reaction I sometimes get from my Green friends is that I am doing a great job “converting” all these anti-environmental bushies. I very quickly correct this impression. First, many farmers are not anti-environmental. The best farmers, in fact, have to be keenly aware of the need to work with nature. Also, at no stage did I take an evangelical approach to my work with rural landowners fighting coal or CSG companies.

I travelled extensively through rural Queensland, and then later through New South Wales and Victoria, learning as much as I could about the impacts of these industries and



how people in rural and regional Australia coped with life. In doing so, I went back to my own roots which were in the small Queensland country town of Chinchilla, now right in the heart of Gasland.

I was born and raised in Chinchilla and knew the whole western darling Downs intimately. It was therefore heart-breaking to see what was happening to it – 4000 wells already with at least 40,000 destined to go into the Surat Basin – and so it was easy for me to empathise with landowners caught up in this tragedy-in-the-making.

I went from farmhouse to farmhouse. I found despair, bitterness, anger and depression. I was often met with resentment that someone with my background (an environmental activist) would be arriving at their door. Nevertheless, most saw the value of having a strategic alliance with environmentalists and so I worked with them as they set up local groups and I used the media to get the news out, especially to a city audience. Some groups' existence preceded my arrival – the Friends of Felton, Coal for Breakfast and the Western Downs Alliance were all thriving groups that knew what they were doing.

In fact, it was the Western Downs Alliance that persuaded me to drop all my roles in the Greens and take on coal seam gas. The WDA consists mostly of “blockies” – often very poor people, many on disability pensions, who have moved out to live on lifestyle blocks on the western Darling Downs. They might be poor but some have become key campaigners in Lock the Gate as a whole.

All issues – good farm land, underground water and environmental values are important – but the Tara ‘blockies’ represent a touchstone issue in the campaign. The company QGC plans to put a gas field right across their rural residential estate which is already surrounded by gas infrastructure. This will make their lives miserable and their blocks unsaleable. This is a major social justice issue and they deserve support. A lot of farmers like the indefatigable Lee McNicholl and Paul O’Neill have given great support to all the direct action undertaken by the WDA but there is still a lot of class prejudice in the bush. No state politician has been anywhere near them, even with an election looming.

Blockies, cow-cookies, croppers and greenies have all come together under the Lock the Gate brand. A locked gate in the bush is a powerful symbol. It means you can’t come in and it expresses the determination of landowners to refuse entry to resource companies even though the law might say they have no choice. This non-cooperation campaign has resulted in hundreds of landowners locking their gates on resource companies, especially coal seam gas companies which prefer to negotiate an access and compensation agreement with the landowner rather than buying the property.

The rate of sign-up by landowners has slowed to a trickle as landowners have come to realise the dangers of coal seam gas and can see the success other landowners are having with their defiance of the companies. This has worked so well that one company at least – Arrow Energy – will have great difficulty even getting off the ground because they simply will not persuade enough landowners to agree to its access.



### Confrontational tactics

However, Lock the Gate has stepped up its confrontational tactics and has started to “block the gate”. In other words communities are reacting to the unwanted presence of gas activity in their areas and have taken to blockading the companies. The first such action was at Tara in early 2011 where the Western Downs Alliance conducted a blockade against QGC and forced them to take over 90 days to connect up five wells, a job that was supposed to take no more than three weeks.

Then, in January 2012, members of the group, Keep the Scenic Rim Scenic, blockaded an Arrow Energy drill rig. Fifteen people were arrested in the 12-day blockade and the drill rig was able to finish its work, protected by dozens of police, but it is not likely they will be back. If they do come back, they will be blockaded again.

Then, in February 2012, 400 Lock the Gate members, mostly landowners, marched on the coal loading facility for New Hope Coal’s Acland mine. They were accompanied by well-known Australians like radio broadcaster Alan Jones, and politicians Bob Katter and the Greens’ Senator Larissa Waters. LNP leader, Campbell Newman, announced that a government run by him would not allow the proposed Acland mine to go ahead and, almost immediately, New Hope withdrew its company from the market and its share price dropped more than 5%.

The alliance of farmers and greenies has already chalked up some good wins with its policy of keeping resource activity away from inappropriate areas and its strategy of non-violent direct action to confront this destructive behaviour and the governments that allow it. However, this conflict will last a long time and there will be many more tests of this fascinating new social movement – Lock the Gate.

*Drew Hutton is a spokesperson for Friends of the Earth (Australia) and president of the Lock the Gate Alliance. This article originally appeared in Crikey.*

# Coal, CSG & Victoria's green politics battleground

Cam Walker

The political terrain around environmental issues is shifting. During the 2010 Victorian election campaign it was clear that the Coalition decided it couldn't get ahead of the Greens and ALP on environmental issues and so ran silent, leaving the debate largely to an inner electorate argument about Hazelwood.

Its 'no target' approach meant it tried to appear moderate, constantly promising to release a full environment and climate policy (which never surfaced) and even pledging support for several government initiatives.

But after 18 months in power the Baillieu Government's real environmental agenda has become all too apparent. Since winning office it has steadily pushed a slash and burn operation through the previous government's environmental legislation, killing off the 20% greenhouse gas emissions reduction target, slashing the solar feed-in tariff, cutting staff in biodiversity, enacting a wind farm policy that effectively knee-caps the industry, and allowing cattle back into the Alpine National Park.

As a result it is facing a determined and united green movement, which will work hard to make environment and climate key election priorities in 2014.

What makes 2014 different is how things are unfolding in rural Victoria. In a significant strategic error, a growing number of the Coalition's actions have also badly let down its own supporters, and the ramifications of this are likely to play out far from the usual inner city and leafy green suburbs. Even cost of living campaigns in metro seats could be eclipsed by a rural and regional backlash.

Take the coal seam gas (CSG) issue for starters – a big issue across the 'coal belt' but barely reported in metro media. What is fascinating here is that rural communities are finding common cause with green activists, just as with the Lock the Gate Alliance in the northern states. Coalition representatives have been noticeable by their absence in their own constituencies at forums and in the media debate, while the people speaking at public meetings are more likely to be environmental activists.

Federal and state Greens MPs have played a key role in a number of community campaigns against coal and gas. The ALP has called for a moratorium on CSG. Meanwhile, Deputy Premier Peter Ryan, a National in a seat where concern over CSG and new coal is huge, continues to declare that existing legislation will protect farmer's rights. No astute political observer can believe that this position will be tenable for much longer.

And it gets worse for the government. The recent announcement of the closure of Department of Primary Industries offices at Ararat, Birchip, Camperdown, Cobram, Kyneton, Ouyen and St Arnaud is a further blow to many small towns. The same applies to the two kilometre wind buffer and 'no go' zones that are already resulting in lost investment and jobs for local tradespeople in small towns throughout the state. Slashing the solar feed-in tariff will prevent struggling rural and regional families from being able to reduce their household energy bills and hedge against future price rises.





The government clearly thinks it can get away with implementing retrograde environmental policies but I suggest they have overlooked two key factors that may come back to haunt them in 2014.

The first is the assumption that Liberal voters don't care about the environment. Certainly not all do. But as any politician will know, it's about margins, not absolute numbers. And with Ted Baillieu's approval rating already plummeting, 2014 is shaping to be a close election.

In some electorates, up to 30% of Liberal voters allocate their preferences to the Greens even when the Liberals have issued a how to vote card against them. A common statistic cited is that the preference 'bleed' is about one voter in five. For those who pay attention to environmental debates, the Baillieu government is on the nose and this could well impact on where many Liberal voters put their preferences on election day.

The second element was harder to spot back in 2010 as it only came into focus last year. In recent times there have been a growing number of proposals for new coal and gas operations across the southern half of the state, with more than 20 exploration licenses currently issued for CSG in Victoria.

In the public realm, the state government ignores the mining issue, while a growing number of local councils have supported motions against coal, gas, or both. The Victorian Farmers Federation, long an ally of the Coalition, has finally come off the fence and called for land owners to have the same right of veto for CSG drilling that they have over wind turbines.

Communities have been fighting new coal proposals in western and southern Victoria and increasingly they are winning. In 2011, communities south of Colac faced off against mining company Mantle, which had the common sense to make a strategic retreat.

As anger grows across Coalition held seats, and as companies jostle to turn their visions of an enlarged fossil fuel industry into real drill rigs and open cut mines, a key battle ground in the build up to the 2014 state election will be the farmland of southern Victoria.

At the time of writing (late June), the final report of the Inquiry into Greenfields Mineral Exploration and Project Development in Victoria is about to be tabled in parliament. This is the government's opportunity to show it is listening to community concerns.

The government must understand that anything less than a moratorium on coal and gas and full inquiry will not be enough to alleviate community concerns.

*Cam Walker is campaigns co-ordinator with Friends of the Earth Melbourne.*

## Friends of the Earth invites you to join the **Active Friends Program**

### **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.

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# The power of locking your gate

Aidan Ricketts

The unconventional gas industry is on the March in Australia. Having moved to full production first in southern Queensland, there are now exploration permits issued or in the application process across vast tracts of NSW and Victoria and in other states and territories.

Unconventional gas refers to the infamous coal seam gas as well as tight sands gas, gas found in shale deposits and a variety of other problematic extraction processes. As the large-scale pollution of rural Australia by unconventional gas activities becomes better known, we are also witnessing the emergence of a rapidly growing and surprisingly mainstream social movement in opposition.

The social movement is a spontaneous response to a failure by our parliaments, politicians and legal systems to provide adequate protection for land owners, the water table and other environmental values from the rapacious, untested and dangerous activities of gas companies.

The Lock the Gate Alliance, which began in Queensland, is now a nationally incorporated body providing some national co-ordination of the hundreds of local groups that have sprung up to fight this threat. But predominantly the response to the gas industry is being propelled by a rapidly expanding grassroots movement with surprising vigour and a preparedness to utilise quite radical means of peaceful resistance to stop this industry.

## Gasfield free community strategy

The first phase of community resistance took the form of the Lock the Gate strategy in which individual landowners refused to negotiate access arrangements with gas companies during the exploration phase. The strategy has proven very successful in rallying support in rural areas, but as a strategy used in isolation has some shortcomings which are now being addressed by a new strategic approach, the 'gasfield free community strategy'. This strategy deliberately takes the focus of resistance away from the issue of private property rights and locates it firmly on the footing of community solidarity and introduces a landscape-wide approach to resisting unconventional gas activities.

The gasfield free community strategy was launched in the Northern Rivers of NSW, an area known historically for its use of peaceful direct action techniques to resist environmental destruction. The idea was to trial the idea first in the Northern Rivers so that it could be refined and adapted to other communities. The idea has taken off virally in NSW with over 16 communities enlisted and many more coming on board. The national Lock the Gate alliance has now endorsed the strategy for national roll-out and no doubt it will be an important part of the struggle in other states.

In a nutshell the gasfield free community strategy involves local communities holding public meetings and conducting face-to-face neighbourhood surveys to build support for a local resolution to become a gasfield free community. Once this is done – and in NSW most participating communities record support in the 90 percentile – communities erect signage on major roads, sometimes register with supportive local governments and mayors and then begin the substantial task of building internal networks to support peaceful direct action to prevent all gas activity in their own and surrounding communities. It's like a cross between neighbourhood watch and the rural fire brigades.

One question that is constantly being asked is 'What is the legal significance of putting up 'Lock the Gate' signs or declaring our communities 'Gasfield Free'? The simple answer to this is that the Lock the Gate strategy is a very powerful form of resistance to mining companies and the gasfield free community strategy even more so, but at their heart they are political strategies, and are not expected to provide enforceable legal protection.

Ask a lawyer if locking the gate will make it impossible for mining companies to access your land and they will most likely give you a technical answer: mining companies have special rights granted under the relevant legislation to force a landowner to arbitration and ultimately to court to effectively force access. At first blush this is disturbing information and can cause many people to feel as though resistance is useless. But resistance is not useless, it is very powerful and here's why.

## Politics

The law does not exist in a vacuum; it is created by and maintained by the political process. Lawyers have a professional responsibility to give accurate advice to individual clients about their individual rights. Unfortunately taking a purely individual approach can run the risk of missing the social and political context of disputes like the current one over unconventional gas mining. It is a political dispute involving large numbers of people and when large numbers of people stand together in solidarity, the context within which the law operates changes significantly.

If a single landowner refused access on their own, a determined mining company could force access or simply step around them by gaining access to neighbouring properties. But when hundreds of landowners in a community, and particularly where all of the landowners refuse access, then the mining company is faced with a rapidly diminishing return if they try to force access into that community. The political and economic cost of launching



numerous individual actions against landowners would inevitably cause a political backlash. Thus the real question is not what happens when one farmer locks the gate, but what happens when hundreds of farmers lock the gate?

But there are still some important limitations to the strategy of locking the gate. Because it's a strategy based on private ownership rights, there is a danger that mining companies may be able to 'divide and conquer' by playing one landowner off against another.

This is where the gasfield free community strategy kicks in. The strategy takes resistance from the farm gate to the whole of community level; it aims to protect both private and public land and it resists all activities of miners, not just drilling and fracking. It means that the front line of resistance moves from your front gate to the frontiers of your community, and that you and your neighbours have agreed upon mutual assistance to help each other. It's not that different to the way we all work together to fight other external threats like floods and bushfires.

So what happens where mining companies try to ignore these community declarations? Mining companies may aim to break the will of communities by going in regardless and requesting police assistance. We saw this last year in Kerry (south-east Queensland), but we also saw that the gas miners lost more than they gained. They gained a symbolic victory over a single blockade but at an unsustainable political cost. They may be able to break one blockade, they may be able to break several, but ultimately an industry and the politicians that support it cannot prevail against the solidarity of communities on a broad scale.

In a nutshell the problem for industry in breaking blockades is that even when they win on the ground they will lose

in the court of public opinion. This is especially so if communities behave in a disciplined and peaceful way and respect the difficult role of police in these situations.

The need for blockades can be avoided if politicians listen to the voice of united communities and intervene to protect them from unconventional gas mining, but this not where we seem to be headed at present. The community is presently doing all it can to have its voice heard but if this does not wake up our politicians then communities may be forced to defend themselves. As the CSG Free Northern Rivers banner says: 'Our resistance is non-violent but non-negotiable'.

The CSG free (Northern Rivers) website ([csgfreenorthernrivers.org](http://csgfreenorthernrivers.org)) is dedicated to providing freely available resources to help other communities to respond to the gas threat by going gasfield free. The site contains resources, 'how to' guides, forms and templates for joining this fast growing and powerful social movement. Further resources on how to plan community campaigns and practice peaceful direct action are available at [aidanricketts.com](http://aidanricketts.com), where you can also purchase copies of 'The Activist's Handbook' online.

*Aidan Ricketts is the author of the Activists Handbook, a prominent activism trainer, and a lecturer at the School of Law and Justice at Southern Cross University where his research and teaching specialisation is in the area of community activism and public interest advocacy.*



# James Price Point LNG controversy

Lily Rudolph

Walmadan is a pristine stretch of coastal land in the Kimberley region, 60 kms north of Broome. The Walmadan Tent Embassy, the main camp of Walmadan, is a five minute walk from the beach. Low crumbly red pindan cliffs and powdery white dunes line a deep turquoise sea.

This area holds the world's longest intact trail of dinosaur footprints dating back to the early Cretaceous Period, 130 million years ago. It is home to the world's largest migration of humpback whales. The western Kimberley is the habitat for a long list of vulnerable, threatened, and endangered species including the Bilby, the Northern Quoll, the Gouldian Finch, the Masked Owl, the Snubfin Dolphin and the Dugong, many of which are endemic to the area.

This prehistoric region yields incredible potential for discoveries, yet very little research has been done. Just this year scientists may have found a new species, the miniature spinner dolphin, just off the coast of James Price Point.

Despite its beauty the Kimberley has managed to remain free from industrialisation. It is a place where humankind has not forced mastery over the earth. The land here holds stories that have not been shoveled away or cemented over; they have been left to transition naturally over time. The Kimberley has a primal energy. The stories here are real.

The western Kimberley region is home to the Goolarabooloo people. The 82 kilometre stretch of coast, running south from Garigan to Minyrr – Gantheaume Point – forms one continuous songline known as the Lurujarri

Trail. This is where the spirit beings of Bugarregarre or Dreamtime are believed to have created life. Scientists, anthropologists, and travelers alike walk the trail to appreciate and better understand the stories and culture of the Goolarabooloo people.

The West Australian government formally announced its intent to acquire James Price Point in 2009. At the time, Premier Colin Barnett was beginning to lay the groundwork to build the largest Liquid Natural Gas processing plant in the Southern Hemisphere; the second largest in the world. The same year, Barnett bragged to the media: "The Kimberley Coast is set to become the Saudi Arabia of Natural Gas."

The impacts of the proposal, according to The Wilderness Society, would include:

- clearing of 24 square kilometres of Pindan Woodlands;
- dredging of up to 21 million tonnes of sediment with serious ecological impacts on the marine environment;
- possible adverse impacts on humpback whales – the largest humpback nursery on Earth lies between Broome and Camden Sound;
- impacts on fish breeding sites;
- five marine turtle species, including Australia's own Flatback turtle, are found in the Kimberley and could be impacted;
- a coral reef province of global significance extends along the Kimberley coast;
- potential adverse impacts on the Snubfin dolphin population;





- the diverse coral and other communities would be threatened by the extensive reef blasting that would be required for port and channel construction;
- conservative estimates of just the initial project indicate that 15 million tonnes of greenhouse gases would be emitted every year – equivalent to 3 million cars (20% of WA's total);
- the gas hub would release gases from flare towers and other operations including poisonous nitrogen and sulfur compounds;
- continuous pollution and degradation of the marine environment from drilling, dredging, shipping, and pipelines being laid along the ocean floor;
- the potential for oil spills – along with the proposed LNG processing plant would come the construction of huge oil and gas rigs and undersea pipelines and a massive increase in shipping;
- a huge amount of fresh water would be required for this project which would come from groundwater or via desalination – the use of groundwater would likely have negative impacts on the waterholes and vegetation of the region while desalination is an energy (and greenhouse) intensive process that also releases highly saline water and chemicals into the marine environment; and
- Scott Reef is in danger, with Woodside planning to put the rig that will pump oil and gas to James Price Point on top of the environmentally important and beautiful reef.

## Blockade and legal battle

In 2010–11, the main campaign agenda was physical, direct action. That is how Walmadan got its reputation as a blockade camp. This year is a bit different, because the majority of the battle is taking place in the courts. Recent legal battles have done wonders in bringing layers of corruption to light.

The two Aboriginal groups native to the western Kimberley region, the Goolarabooloo and the Jabirr Jabirr, share a native title claim over the area. Since they are in a joint claim, both groups need to agree upon what to do with the land. In May 2011 the Goolarabooloo and the Jabirr Jabirr were invited for a meeting to discuss the Woodside and WA government's proposed benefits package.

The groups were offered \$1.3 billion over the course of the construction in exchange for acquiring the land. Some Goolarabooloo people were so insulted by the offer that they walked out. At the end of the meeting there was a vote as to whether to accept the package. Out of those present, 164 voted in favour of the package, 108 voted against and five abstained. The Goolarabooloo were not forewarned that there would be a vote and many people were absent. It is clear that the vote was strategically set to assure the offer would be accepted.

In December 2011, traditional owners Phillip Roe and Neil McKenzie disputed the vote, as well as the WA government's right to compulsorily acquire the land. During the case it became clear that Woodside and the WA government did not have permits for any of the work they had done. By working without permits, Woodside was and still is breaking the law. The Supreme Court ruled on three counts in favour of Roe and McKenzie. The judge declared that Traditional Owners do not have to follow the Queen's law; they are lawmen in their own right.

Barnett's response was to set up the Development Assessment Panel, known throughout Broome as the 'Do As you Please' Panel. The Panel was designed to handle any project over \$3 million, taking the power out of the hands of the shire, and making it easier for the WA government to take control of the project.

In May, Barnett wasted over a million dollars in taxpayers' money to bring in 140 extra police officers to accompany the Woodside convoy. The West Australian newspaper described the decision as a move to "crush the Broome community."

In recent months there has been speculation into alternative ways to secure the LNG. Woodside has expressed interest in piping the gas down to Karratha in the Pilbara region. This would be \$10 billion cheaper, and more importantly, the Kimberley would be left alone. However, Barnett is dead set on developing the area with or without Woodside.

## Native title claim

In June, Joseph Roe of Goolarabooloo applied to split the native title claim, so that the Jabirr Jabirr and the Goolarabooloo would each be on a separate title to the land. This would mean that Woodside and Barnett would need to ask both groups individually for license to the land. Woodside threatened to suspend over \$1 billion in benefits if the groups went through with the split.

On June 14, an hour before the case was meant to be heard, the Kimberley Land Council withdrew the application due to immense pressure from Woodside and the WA government. The role of the KLC is to represent Traditional Owners, and assist them in land disputes. This is the opposite of what they have actually been doing.

There is a sign near the entrance to Walmadan Tent Embassy informing visitors that the area is protected by the Aboriginal Heritage Act of 1972. The Act makes it illegal to damage, destroy, or alter Aboriginal land. The WA Government has recently applied to the federal government to alter the Act to make it easier to acquire Aboriginal land for state expansion projects. This would only benefit mining companies, and put 90% of cultural heritage sites at risk. Already, an estimated 80% of mining activities in Australia take place on Aboriginal land. If this application goes through it will be a huge risk to Indigenous sacred sites.

Standing on the beach at Walmadan, looking out on a clear blue ocean, you can see beautiful coral reefs. Whales migrate in the water as crabs run across the sand. There is only one eyesore: the bright red drill rig, a constant reminder of what we are fighting against. Driving into Walmadan, on the side of Manari Road, there is banner: 'First they ignore you, then they laugh at you, then they fight you, then you win.' – Ghandi.

*Lily Rudolph is currently living in the Walmadan Tent Embassy at James Price Point.*

## More Information

Goolarabooloo:  
[www.goolarabooloo.org.au](http://www.goolarabooloo.org.au)

Hands Off Country:  
[handsoffcountry.blogspot.com.au](http://handsoffcountry.blogspot.com.au)

Wilderness Society:  
[www.wilderness.org.au/campaigns/kimberley](http://www.wilderness.org.au/campaigns/kimberley)

# Uranium flashpoint in WA

Jim Green

Interesting times in the uranium sector. The mining companies have had a few wins since the March 2011 Fukushima disaster, but they've had more to commiserate.

Bill Repard, organiser of the Paydirt Uranium Conference held in Adelaide in February, put on a brave face with his claim that: "The sector's hiccups in the wake of Fukushima are now over with, the global development of new nuclear power stations continues unabated and the Australian sector has literally commenced a U-turn in every sense," Mr Repard said.

Yet for all the hype, uranium accounts for a lousy 0.03 percent of Australian export revenue and a negligible 0.02 percent of Australian jobs. The industry's future depends on the nuclear power 'renaissance', but global nuclear power capacity has been stagnant for the past 20 years and if there is any growth at all in the next 20 years, it will be modest.

The uranium price tanked after the Fukushima disaster and so far there is no sign of a bounce. Current prices are too low to allow the smaller uranium wannabes to proceed with any confidence.

In South Australia, BHP Billiton's plan for a massive expansion of the Olympic Dam copper/uranium mine has yet to be approved by the company board, with recent rumblings that the project may be put on the slow-track. Japanese company Mitsui recently pulled out the Honeymoon uranium mine as it "could not foresee sufficient economic return from the project". Marathon Resources' plan to mine uranium has been terminated by a state government decision to protect the Arkaroola Wilderness Sanctuary – a decision made all the easier by the company's licence breaches during exploration.

The industry also has problems in the Northern Territory. A Traditional Owner veto has put an end to plans to mine Koongarra, and plans are in train to incorporate the mining lease into Kakadu National Park. Energy Resources of Australia has abandoned plans to use heap leach mining at the Ranger mine, though an exploratory drilling program has recently commenced. Water management problems continue to plague the mining and milling of uranium at Ranger. At various times in recent years, both the NT Country Liberal Party and the Labor Party have opposed plans to build a mine at Angela Pamela, a short distance from Alice Springs and an even shorter distance from the town's water supply.

In Queensland, the new Liberal National Party government has so far stuck to its pre-election promise to prohibit uranium mining. That may change, but in any case Queensland is home to no more than around three percent of Australia's uranium reserves. The NSW Liberal Party government has recently passed legislation to permit uranium exploration – but exploration in earlier decades yielded little of interest.

## Western Australia

Western Australia is now the key uranium battleground. The Liberal Party state government supports uranium mining. State Labor policy is to oppose uranium mining but party leader Mark McGowan says that any mines that have received state government approvals would not be stopped by an incoming Labor government.

As elsewhere, it has been a miserable year for the uranium mining wannabes in WA. At least two projects have been put on hold. The only company with any chance of receiving government approvals before the 2013 state election is Toro Energy, which is pursuing plans to mine about 12,000 tonnes of uranium at Wiluna in the Goldfields.

You'd think that Toro Energy might keep a low profile given the political sensitivities. Not so. The company has been loudly defending TEPCO, the notorious operator of the crippled Fukushima plant – even in the face of overwhelming evidence of TEPCO's record of safety breaches and cover-ups.

Still more controversially, Toro Energy has paid for a number of speaking tours by fringe scientists who claim that exposure to low-level radiation is harmless or even beneficial to human health. Forty-five Australian medical doctors recently signed a statement calling on Toro Energy to stop promoting junk science and noting that recent scientific research has heightened concern about exposure to radon, the main source of radiation exposure to uranium miners.

The WA Conservation Council is leading the battle to stop Toro Energy opening up the state's first uranium mining, and has established a website to challenge the company's claims. The Conservation Council has also produced a detailed 'Alternative Annual Report' raising a host of concerns about Toro Energy and its plan to mine at Wiluna. A 'Toro Watch' website has been established to hold the company to account for its jiggery pokery and shenanigans ([www.toro.org.au](http://www.toro.org.au)).

The history of uranium exploration in the Goldfields is one of the obstacles facing Toro Energy. Uranium exploration in the 1980s left a legacy of pollution and contamination. Radiation levels more than 100 times normal background readings have been recorded despite the area being 'cleaned' a decade ago. Even after the 'clean up', the Wiluna exploration 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.

In August 2000, Steve Syred, coordinator of the Wiluna-based Maruwayura Aboriginal Corporation, said that until about 1993, 100–150 people were living at an old mission three kilometres from the spot where high radiation levels were recorded. Mr. Syred told the Kalgoorlie Miner that the Aboriginal community had unsuccessfully resisted uranium

exploration in the area in the early 1980s. Since then many people had lived in the area while the Ngangganawili Aboriginal Corporation was based near the site. Elders still hunted in the area.

More than 5,000 tonnes of radioactive tailings from the Yeelirrie uranium deposit, near Wiluna, were buried just north of Kalgoorlie after BHP stopped processing ore there in the 1980s. Earlier this year, damage to a security gate

allowed children to enter the site on dirt bikes. BHP Billiton said it would improve security.

There is also concern in Kalgoorlie about plans to establish a uranium transport hub in the suburb of Parkeston, a few hundred metres from the Ninga Mia Aboriginal Community. That concern may be premature – it remains to be seen if there will be any uranium to transport.

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



Drums of ore left to corrode after uranium exploration in the 1980s.

## EPA approval of Wiluna mine appealed

In June, nine appeals were lodged against the WA EPA's approval of the Wiluna uranium mine proposal the previous month. The appeals will be heard by an appeals committee and considered by WA environment minister Bill Marmion. Notwithstanding the EPA decision, further state government approvals are required before mining can proceed as well as Commonwealth approvals.

The Environmental Defenders Office lodged a detailed appeal on behalf of the Conservation Council of WA. CCWA director Piers Verstegen said: "We do not believe that the EPA assessment adequately deals with critical environmental risks including the management of radioactive mine tailings, contamination of groundwater and the transport of radioactive material through WA communities."

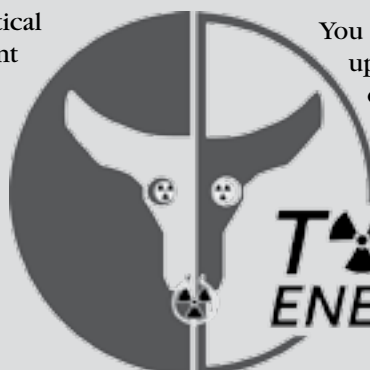
Aboriginal elder and Wiluna resident Glen Cooke lodged a separate challenge. Mr Cooke's video appeal is posted at [wanfa.org.au](http://wanfa.org.au) and at [youtube.com/user/BUMPCollective](http://youtube.com/user/BUMPCollective).

Mr Cooke said: "Toro Energy they only talk to a few people, always the same people."

"It's not right, the people from Bondini sometimes they don't know about meetings, or their not invited to meetings or they can't get to meetings. This is not right." (Bondini is the community closest to the proposed mine.)

"Marmion and [federal environment minister] Burke they will be making a big decision that will affect our community our dreaming and our health. Before they make a decision on what happens in our community, before signing away our country from many thousands of kilometres away they should come and look us in the eyes."

You can help Mr Cooke and his community stand up and say no to uranium mining by signing the online petition at [ccwa.org.au/saynototoro](http://ccwa.org.au/saynototoro)



**TOROSAURUS**  
ENERGY DINOSAUR



# Toro Energy promotes dangerous radiation junk science

In May, 45 medical doctors working in Australia released a statement calling on Toro Energy to stop promoting the dangerous and scientifically-indefensible claim that low-level radiation is beneficial to human health. Not a single doctor or radiation expert spoke up in defence of Toro.

In a ninemsn.com.au interview, Toro claimed that “we’ve actually supported different views, scientific views, about the health effects of radiation” and that Doug Boreham (a radiation junk scientist) “is not the only scientist that we support or have supported in the past in terms of sponsorship to conferences”. However there is no evidence for those claims and Toro has ignored repeated requests to supply evidence to support them.

Here is the text of the medical statement:

*Toro Energy is an Australian company involved in uranium exploration in Western Australia, the Northern Territory, South Australia and in Namibia, Africa. The company’s most advanced project is the proposed Wiluna uranium mine in the WA Goldfields.*

*Toro Energy has consistently promoted the fringe scientific view that exposure to low-level radiation is harmless. Toro Energy has sponsored at least three speaking visits to Australia by Canadian scientist Dr Doug Boreham, who argues that low-level radiation is actually beneficial to human health.*

*Those views are at odds with mainstream scientific evidence and expert assessment. For example:*

- *A 2010 report by the United Nations Scientific Committee on the Effects of Atomic Radiation states that “the current balance of available evidence tends to favour a non-threshold response for the mutational component of radiation-associated cancer induction at low doses and low dose rates.”*

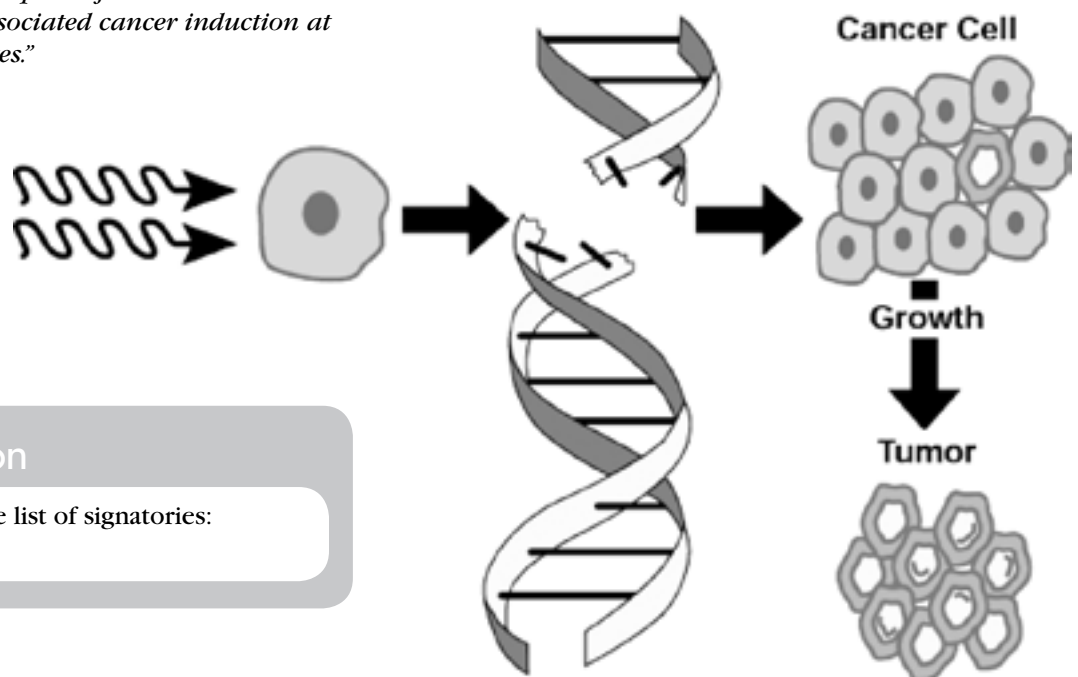
- *The 2006 report of the Committee on the Biological Effects of Ionising Radiation (BEIR) of the US National Academy of Sciences states that “the risk of cancer proceeds in a linear fashion at lower doses without a threshold and ... the smallest dose has the potential to cause a small increase in risk to humans.” The report also concludes that claims that low-level radiation exposure may be beneficial to human health are “unwarranted”.*

- *A study published in the Proceedings of the National Academy of Sciences (US) in 2003 concluded that: “Given that it is supported by experimentally grounded, quantifiable, biophysical arguments, a linear extrapolation of cancer risks from intermediate to very low doses currently appears to be the most appropriate methodology.”*

*It is irresponsible for Toro Energy to consistently promote fringe scientific views and to ignore mainstream scientific evidence and expert assessment.*

*Even more alarming is that Toro Energy has sponsored “employee radiation training” by Dr Boreham. Recent scientific research has heightened concern about exposure to radon, the main source of radiation doses to uranium industry workers. In 2009, the International Commission on Radiological Protection concluded that radon gas delivers almost twice the radiation dose to humans as originally thought and the Commission is in the process of reassessing permissible levels. Previous dose estimates to miners need to be approximately doubled to accurately reflect the lung cancer hazard.*

*We call on Toro Energy to stop promoting fringe scientific views to uranium industry workers and to the public at large.*



## More Information

More information and the list of signatories:  
[www.mapw.org.au](http://www.mapw.org.au)

Development of cancer from mutation produced by ionizing radiation

# Anti-uranium Walk for Country in WA

Western Australia's anti-uranium mining campaign stepped up a notch in May when we heard news of EPA approval of Toro Energy's proposed uranium mine at Wiluna. It's not a time to sit around and commiserate however; it's a long way from a dodgy approval to a dangerous mine.

Time to think about using our strengths – inspiration, solidarity, commitment and community – to turn things around. 'Walkatjurra Walkabout – Walking for Country' is an example of peaceful action that will support indigenous voices speaking out against the mines and strengthens the WA anti-uranium mining campaign.

Walkatjurra Walkabout is a celebration of Wangkatja country, a testament to the strength of the community who have fought to stop uranium mining at Yeelirrie for over 40 years, and a chance to come together to share our commitment to a sustainable nuclear-free future.

Kado Muir, a Traditional Owner from Yeelirrie elaborates: "Walking for country is to reconnect people with land and

culture. The Walkatjurra Walkabout is a pilgrimage across Wangkatja country in the spirit of our ancestors so together, we as present custodians, can protect our land and our culture for future generations.

"My people have resisted destructive mining on our land and our sacred sites for generations. For over 40 years we have fought to stop uranium mining at Yeelirrie, we stopped the removal of sacred stones from Weebo and for the last 20 years we have stopped destruction of 200 sites at Yakabindie. We are not opposed to responsible development, but cannot stand wanton destruction of our land, our culture, and our environment."

The walk will be led by the Walkatjurra Rangers, in partnership with Footprints for Peace, Western Australian Nuclear Free Alliance, the Anti-Nuclear Alliance of Western Australia and the Conservation Council of Western Australia.

The Walkatjurra Ranger group provides opportunities for indigenous community members to undertake cultural maintenance activities, for youth to learn and for elders to promote their culture to others, and to develop opportunities for training and livelihoods based on cultural enterprises. Ranger group activities also provide inspiration in the community for cultural expressions through art projects by allowing access to country and traditional lands.



The seed of this walk was sown in 2011 when Footprints for Peace organised a 10 week, 1250 km walk from Wiluna to Perth. It was a "Walk away from Uranium Mining" in solidarity with Aboriginal people to push for a ban on uranium mining in Western Australia.

Since the Barnett government of WA lifted the ban on uranium mining in 2008, a number of mines have been proposed, and there are now approximately 140 companies with uranium interests in WA. Lake Way, near Wiluna, is the only proposal with EPA approval, two more proposed mines are engaged in state EPA approvals, followed closely by another two proposals that are advancing their exploration programs. Yeelirrie is the site of a proposed BHP mine, and within 100 km are both Toro energy's project at Lake Way, just out of Wiluna, and Mega Uranium's project at Lake Maitland. No mines have full state government approval yet.

The Lake Way proposal would comprise of an open pit 30 kms from the town of Wiluna. Under Toro Energy's proposal, tonnes of radioactive mine waste would be left in an open-air dump, while radioactive ore would be transported nearly 2,700 kms through Leonora, Kalgoorlie, Norseman and other communities. Toro claims the mine will create 350 jobs over its 14 year life (though the fine print in the company's documentation suggests a far smaller workforce). There will also be plenty of work for the next 100,000 years dealing with the tailings and contaminated water created by the mine. It's not clear who will pay for this work, but let's assume that Toro Energy does not plan to cover those costs. Otherwise uranium mining would be frightfully uneconomical for them.

The push to keep WA uranium mine free is heightened as we witness what is happening in South Australia. BHP Billiton is planning to expand the Roxby Downs uranium mine to become the world's largest, creating mountains of unsecured radioactive and toxic tailings and consuming millions of

## Contact

[www.walkingforcountry.com](http://www.walkingforcountry.com).

email: [walking4country@gmail.com](mailto:walking4country@gmail.com)

litres of precious water every day, stolen from surrounding Arabunna and Kokatha land. The company's activities at the mine have destroyed Aboriginal sacred sites, including drying up or reducing flow to precious Mound Springs fed by the Great Artesian Basin. It's time BHP Billiton listened to the Aboriginal people whose land they are digging up, and respect their opposition in WA and South Australia.

It will be a lot easier to stop the mines before they begin and we invite your support. Kado Muir says: "We invite all people, from all places, to come together to walk with us, to send a clear message that we want the environment here, and our sacred places left alone."

You can join the walk from Yeelirrie to Leonora for a few hours, a day, a week or the whole month from August 20 to September 14. It's a community affair, drug and alcohol free and kid friendly. We'll be walking 10-15 km a day with a support vehicle carrying our gear and a kitchen truck with food and water on board. Everyone contributes what they can to cooking, cleaning and camp set-up.

If you cannot join us in person, you can help out with financial donations and in kind support - visit the website for details on how to donate or have a look at our wish-list at [www.walkingforcountry.com](http://www.walkingforcountry.com). Contact us at [walking4country@gmail.com](mailto:walking4country@gmail.com).

And talk to people about the threat of uranium mining in WA and elsewhere - better active today than radioactive tomorrow!

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# The humanitarian imperative to ban nuclear weapons

Tim Wright

Diplomats from more than 100 governments met in Vienna in May to discuss nuclear disarmament, non-proliferation and the so-called “inalienable right” to nuclear technology for “peaceful purposes”. It was the first of three meetings leading up to the Non-Proliferation Treaty (NPT) Review Conference in 2015. Many civil society representatives, including five from Australia, participated in the two-week meeting.

Most non-nuclear-weapon states expressed concerns about the nuclear weapons ‘modernisation’ programs that are underway in the US, Russia, Britain, France and China, and many stressed the importance of reframing disarmament debates in humanitarian terms. Switzerland delivered a statement on behalf of 16 states on the “catastrophic humanitarian consequences” of any use of nuclear weapons, which called for intensified efforts to outlaw and eliminate them.

International Campaign to Abolish Nuclear Weapons (ICAN) chair Tilman Ruff spoke at the meeting on the medical effects of nuclear weapons, noting the recent advocacy of the Red Cross and Red Crescent movement in the field of nuclear disarmament. He called on governments to move from beyond a national security focused approach to a human-centred approach in disarmament negotiations. This was a common theme throughout the meeting.

Norway announced that it would hold a conference in 2013 to explore the humanitarian dimension of nuclear disarmament, which will involve any interested governments, UN agencies, Red Cross societies and civil society partners. The Australian government has not yet indicated whether it will attend. ICAN has expressed its hope that the conference will lead to a process for negotiating a new treaty to ban nuclear weapons.

Immediately prior to the NPT meeting, more than 100 ICAN campaigners from 30 countries took part in a weekend conference to discuss ICAN strategy, structure and initiatives for the coming year. Workshops at the meeting focused on the proposal for a nuclear-free zone in the Middle East, divestment, and humanitarian consequences. The next international ICAN meeting will be held in Hiroshima on 21 August.

Civil society groups are growing increasingly frustrated with the NPT process, for three main reasons. First, the nuclear-weapon states continue to modernise their nuclear arsenals while claiming to disarm. This is a violation of the treaty. Second, a disproportionate amount of time is spent discussing potential proliferators rather than the 20,000 nuclear weapons that actually exist in the world. And third, the treaty’s promotion of nuclear power is at odds with non-proliferation, disarmament and the vision for a safe, sustainable future.

Very few countries referred to the Fukushima disaster in their statements, even though it happened little over a year ago. While some noted the dangers of the nuclear fuel cycle, most used the NPT meeting to propagate myths about the virtues of nuclear power, including the idea that it is necessary for combating climate change and achieving the Millennium Development Goals.

Japan said that the disaster “has dealt a serious blow to the Japanese perception regarding nuclear safety” – as if to suggest that the battle they are losing is one of public relations alone. Reaching Critical Will has produced a critique of government responses to the disaster titled ‘Costs, Risks and Myths of Nuclear Power’.

Reaching Critical Will has also published reports on nuclear weapons modernisation and a scorecard assessing states’ implementation of their NPT commitments from 2010. These publications are available at [www.reachingcriticalwill.org](http://www.reachingcriticalwill.org).

*Tim Wright is the Australian director of the International Campaign to Abolish Nuclear Weapons (ICAN). [icanw.org](http://icanw.org)*



# Muckaty Traditional Owners fighting Ferguson's dump

Molly Wishart

Four Muckaty Traditional Owners – Penny Phillips, Jeannie Sambo, Kylie Sambo and Delvine Spiteri – visited Melbourne on June 25 to attend a Federal Court hearing concerning the nomination of Muckaty, 120 kms north of Tennant Creek in the Northern Territory, for a national nuclear waste dump.

Legal proceedings against the federal government and the Northern Land Council began in June 2010 and a trial is anticipated in the first half of 2013. A small group of Traditional Owners support the dump proposal, in return for a financial package, but most are opposed and are challenging the right of the government to establish the dump at Muckaty without their consent.

Legislation pushed through Parliament by federal resources minister Martin Ferguson – the National Radioactive Waste Management Act – allows for the imposition of a dump without consultation with or consent from Traditional Owners. In a previous Federal Court hearing, lawyers for the Commonwealth argued that the Muckaty nomination was valid even if the wrong Traditional Owners were consulted.

The most pressing issue for the government is the return of spent nuclear fuel reprocessed waste from France and Scotland in coming years. The government is aware that its Muckaty plan is unravelling and has moved to firm up an alternative plan – interim storage of the reprocessing waste at the Lucas Heights nuclear research reactor site south of Sydney, from where the spent fuel originated. Plans are in train to increase storage capacity at Lucas Heights.

## Trade unions and emergency services

Some of Australia's most powerful unions have pledged support for the campaign. The Maritime Union of Australia's Victorian Secretary, Kevin Bracken, attended a media event with Traditional Owners after the June 25 court hearing, and Traditional Owners briefed MUA members the following

day. In Darwin, the MUA is organising a protest at Stokes Hill Wharf on July 12, marking seven years since the NT was first targeted for a nuclear waste dump. The MUA is sending delegates from around the country to attend this event.

In May, the Australian Council of Trade Unions Congress passed a resolution expressing disappointment that the Muckaty site will continue to be pursued under the National Radioactive Waste Management Act and affirming that the ACTU "stands in solidarity with Traditional Owners and communities resisting Federal Government plans for a radioactive waste dump and commits to supporting trade unions refusing to cooperate with implementation of the policy."

The ACTU Congress resolution further states that "the recent application by ANSTO for reprocessed spent fuel waste to return to the Lucas Heights facility in Sydney and acknowledges this as an opportunity to review radioactive waste management in Australia by conducting an independent and comprehensive public commission into all aspects radioactive waste transport, storage and management in Australia."

United Voice secretary Matthew Gardiner, whose union represents firefighters in the NT, raised the alarm about the NT's emergency response capacity at a public meeting in Darwin in June which was attended by 100 people. Referring to a recent train accident on the Edith River, he said: "If we had one container of nuclear waste on that train when it derailed, we would have had to use virtually every single firefighter in the NT."

He said the reason why nearly the entire firefighting force would be needed was due to the protective suits and equipment worn when dealing with incidents involving chemical, biological and radiological materials: "You can only work for a maximum of half an hour at a time before the heat stress gets so much you have to be replaced."

Protest at Tennant Creek, May 25.



## More Information

Beyond Nuclear Initiative:  
[www.beyondnuclearinitiative.com](http://www.beyondnuclearinitiative.com)

Friends of the Earth:  
[www.foe.org.au/anti-nuclear](http://www.foe.org.au/anti-nuclear)

Nuclear Freeways:  
[www.nuclearfreeways.org.au](http://www.nuclearfreeways.org.au)

Maurice Blackburn:  
[www.mauriceblackburn.com.au/areas-of-practice/social-justice-practice.aspx](http://www.mauriceblackburn.com.au/areas-of-practice/social-justice-practice.aspx)



Jeannie Sambo and Penny Phillips answering media questions after the Federal Court hearing.

The NT government said in a Senate Inquiry submission in 2010 that: "There is very limited capacity within the Northern Territory hospital network outside of Darwin to respond to any radioactive waste incident or accident." The NT government also said that the Port of Darwin "does not have the resource capacity (expertise or equipment) to respond to a radioactive incident."

### Tennant Creek protest

At a protest in Tennant Creek in late May, people spoke about the anger, despair and sadness which had dominated their lives since the nomination of Muckaty, with many vowing to establish a blockade if the government goes ahead with its plan.

Muckaty Traditional Owner Ronald Morrison said: "I will not let anyone bring the dump to our land." Labor member for the NT electorate of Barkly, Gerry McCarthy, said he was prepared to "move onto country and sit down" with Traditional Owners if the federal Labor government attempts to begin construction.

Traditional Owner Dianne Stokes told the protest rally: "We have continually said we don't want the waste to come to our land, even though [the Government and the NLC] haven't got ears for listening to us. But I want my voice to be heard, to let people know I'm fighting for my grandfather's country."

Elizabeth O'Shea from the Maurice Blackburn law firm, which is representing Traditional Owners in the Federal Court challenge, told the rally that the Northern Land Council (NLC) had never properly told people what they were planning.

"In court recently, the Commonwealth said it doesn't matter if the NLC finds that Joe Bloggs from Darwin owns the land," she said. "If the NLC says it has done its job properly the Commonwealth can rely on that and build the dump there anyway. That is an appalling argument in my view, it's not what Native Title law is about, it's not what Aboriginal Land Rights is about."



Hudso and Jimbo from Friends of the Earth's Anti-nuclear and Clean Energy (ACE) campaign.



Muckaty Traditional Owners with supporters outside the Federal Court hearing on June 25.



# Maralinga – 60 years on

Jessie Boylan

Travelling to Maralinga for the first time after hearing so much about the effects the British nuclear blasts had on Indigenous people and Australian and British personnel, I didn't know what to expect. I think I expected some sort of overwhelming physical evidence of the blasts, but what appeared was a space full of much remnant history and memory.

I travelled with Australian nuclear veteran, Avon Hudson and Dr. Mick Broderick from Murdoch University. Avon's name is synonymous with Maralinga – he worked there during the bomb tests and, from the 1970s onwards, has done more than anyone to lift the lid on the scandals that took place. His reward has been 40 years of abuse. Mick is an academic whose research interests include 'nuclearism and apocalypse as a cultural phenomenon'.

We'd waited for six months to get permission to enter Maralinga-Tjarutja lands, in particular the Maralinga village and testing sites. The village and surrounding sites were handed back to the Maralinga-Tjarutja people in 2009, though many areas remain radioactive. The 'clean up' in the late 1990s – the fourth but probably not the last – was sharply criticised by scientists-turned-whistleblowers.

Upon arrival we were let in by one of the two caretakers, Robin Matthews, who with his partner Della manages the Maralinga Village and surrounding areas, looks after tour groups and visitors.

The next day we set about exploring the village area and Avon took us to the airfield, next to which is one of the many waste pits where plutonium and cobalt-60 are still buried. We had to wait another day to visit the Forward Area where the nuclear blasts took place.

Veterans were organising a reunion for Remembrance Day 11/11/11 in the village and they had invited Avon, who then invited me. The veterans came from all over the country to catch up and share stories. Most veterans have long since died. How many died as a result of their work on the nuclear blasts is the subject of endless controversy. A scientific

study found clear evidence of increased cancer rates among veterans; but for governments and nuclear apologists, science is overrated.

I chatted with some vets who told me they weren't impacted physically or psychologically from their time at Maralinga, and that they had a simple job of going to Watson (the closest rail-stop) and collecting supplies to bring back to the village. These veterans remember the benefits of living out at Maralinga, the cricket pitch, the football field, the swimming pool, cinema, bar and mess hall.

Later we were privileged to sit down with some of the old ladies from Oak Valley Community, Margaret May and Aida Hart, and also Leena Taylor from Ceduna. They talk about their memories of being removed from Ooldea soak during the nuclear blasts and taken to Yalata Mission.

"We heard the sounds: one, two, three ..." they say, referring to the first bombs at Emu Field, including the blast that blinded Yami Lester at the age of 10 at Walatinna Station, where he still lives today. "People could feel it as far away as Yalata."

They say they knew that something bad was happening because of all the whitefellas and trucks around.

Leena questions whether it's really that safe for communities to live around here and go hunting; she prompts the government to explain. All around the forward area sites, as we see later, there are signs up that say "kuka palya, ngura wiya" – "the food is ok [to hunt/eat], no camping".

Even after the hand-back of land to the Maralinga Tjarutja people, the area still isn't being used – people think the land is poisoned and don't want to be there. The land is still poisoned – that much we know from the scientists-turned-whistleblowers, and from Avon's first-hand knowledge of the place. The Howard government claimed the latest 'clean up' was 'world's best practice'. The Menzies government claimed the bomb tests posed no risk to man nor beast. Governments lie. Then and now, paid hack scientists and so-called regulators parrot government lies; it's just easier that way.

Maralinga Village.  
Photo by Jessie Boylan.





The 'One Tree' plutonium bomb test at Maralinga, 27 September 1956, 12.9 kilotons (about the same explosive force as the bomb which destroyed Hiroshima).

A plinth sits in every space where a bomb was exploded:

WARNING

RADIATION HAZARD

RADIATION LEVELS FOR A FEW HUNDRED METRES AROUND THIS POINT MAY BE ABOVE THOSE CONSIDERED SAFE FOR PERMANENT OCCUPATION

And on the other side (depending on the bomb):

TEST SITE

TARANAKI

A BRITISH ATOMIC WEAPON WAS TEST EXPLODED HERE ON 9 OCT 1957

Avon reminisces: "The countdown was on ... and then it went bang, and they had to have the wind blowing the right way, blowin' it away from where we were working, they didn't want to contaminate all the area, they'd have to abandon it otherwise.

"The area became highly toxic as well as highly radioactive, but no-one ever told us, the scientists knew, but no-one told us Australians, and some of the English personnel that worked along side us."

### Ground Zero

On day three we visit the Forward Area, to see ground zero of some of the seven Maralinga nuclear explosions – named One Tree, Marcoo, Kite, Breakaway, Tadge, Biak, and Taranaki.

Avon speaks alot about Taranaki; he was ordered to work here not long after a blast had taken place. Some military personnel were ordered to roll around in ground zero dust shortly after nuclear blasts; the British later claimed they were testing the effects of radiation on clothing. This place was also used for so-called 'minor trials' or 'safety tests' which left a greater legacy of local contamination than the atomic tests which spread their pollution across Australia and beyond.

Lunch is prepared for the veterans in the shelter of a large shed. The shed was the site for trucks to get washed down after the latest clean up attempt at Maralinga. It isn't the place to be preparing and eating food.

Avon talks as we walk down and around the plinth. I can't imagine what he's thinking, to look back 50 years and see yourself as a young man, participating in a dark episode of Empire history. He feels betrayed. He was betrayed. Talking is cathartic for Avon; it releases a little anger and frustration, if only momentarily. His anger is infectious.

The last day at Maralinga. The evening is purple and pink after a big rain that helps wash away the dust. I wander around the empty concrete slabs where buildings used to be. I listen to birds chirping madly. Radioactive birds, perhaps; just this week, swallow droppings around the Sellafield nuclear site in northern England have been found to be radioactive – apparently their mistake is to eat radioactive mosquitoes. Closer to home, birds drop dead after drinking from tailings ponds at the Olympic Dam uranium mine – oases in the desert.

It gets dark and I head back. Avon is there chatting away to Mick. I make a cup of tea on our camp stove and toast to getting the hell out of here.

*jessieboylan.wordpress.com, jessieboylan.com*



Avon Hudson at Taranaki. Photo by Jessie Boylan.

# The ugly face of Australia's nuclear racism



Jim Green

The nuclear industry has been responsible for some of the crudest racism in Australia's history. This racism dates from the British nuclear bomb tests in the 1950s but it can still be seen today.

The British government conducted 12 nuclear bomb tests in Australia in the 1950s, most of them at Maralinga in South Australia. Permission was not sought from affected Aboriginal groups such as the Pitjantjatjara, Yankunytjatjara, Tjarutja and Kokatha. Thousands of people were adversely affected and the impact on Aboriginal people was particularly profound.

Many Aboriginal people suffered from radiological poisoning. There are tragic accounts of families sleeping in the bomb craters. So-called 'Native Patrol Officers' patrolled thousands of square kilometres to try to ensure that Aboriginal people were removed before nuclear tests took place. Signs were erected in some places – written in English, which few in the affected Indigenous communities could understand. The 1985 Royal Commission found that regard for Aboriginal safety was characterised by "ignorance, incompetence and cynicism". Many Aboriginal people were forcibly removed from their homelands and taken to places such as the Yalata mission in South Australia.

In the late-1990s, the Australian government carried out a clean-up of the Maralinga nuclear test site. It was done on the cheap and many tonnes of debris contaminated with kilograms of plutonium remain buried in shallow, unlined pits in totally unsuitable geology. As nuclear engineer and whistleblower Alan Parkinson said of the 'clean-up' on ABC radio in August 2002: "What was done at Maralinga was a cheap and nasty solution that wouldn't be adopted on white-fellas land."

Despite the residual contamination, the Federal Government has off-loaded responsibility for the land onto the Maralinga Tjarutja Traditional Owners. The Government portrays this land transfer as an act of reconciliation, but the real agenda was spelt out in a 1996 government document which states that the clean-up was "aimed at reducing Commonwealth liability arising from residual contamination."

A win for the Kungkas

In 1998, the federal government announced its intention to build a national radioactive waste dump near Woomera in South Australia. Leading the battle against the dump were the Kupa Piti Kungka Tjuta, a council of senior Aboriginal women from northern South Australia. Many of the Kungkas personally suffered the impacts of the British nuclear bomb tests at Maralinga in the 1950s.

The Kungkas were sceptical about the government's claim that radioactive waste destined for the Woomera dump was 'safe' - after all, the waste would be kept at the Lucas Heights reactor site south of Sydney if it was perfectly safe, or simply dumped in landfill.

The proposed dump generated such controversy in South Australia that the federal government secured the services of a public relations company. Correspondence between the company and the government was released under Freedom of Information laws. In one exchange, a government official asks the PR company to remove sand-dunes from a photo selected to adorn a brochure. The explanation provided by the government official was that: "Dunes are a sensitive area with respect to Aboriginal Heritage". The sand-dunes were removed from the photo, only for the government official to ask if the horizon could be straightened up as well.

In July 2003, the federal government used the Lands Acquisition Act 1989 to seize land for the dump. Native Title rights and interests were extinguished at the stroke of a pen. This took place with no forewarning and no consultation with Aboriginal people.

The Kungkas continued to implore the federal government to 'get their ears out of their pockets', and after six long years the government did just that. In the lead-up to the 2004 federal election, with the dump issue biting politically, the government decided to cut its losses and abandon its plans for a dump in SA.

The Kupa Piti Kungka Tjuta wrote in an open letter: "People said that you can't win against the Government. Just a few women. We just kept talking and telling them to get their ears out of their pockets and listen. We never said we were going to give up. Government has big money to buy their way out but we never gave up."

Toxic trade-off: dumping on Northern Territorians

The ears went straight back in the pockets the following year with the announcement that the government planned to establish a radioactive waste dump in the Northern Territory.

A toxic trade-off of basic services for a radioactive waste dump has been part of this story from the start. Governments have systematically stripped back resources for remote Aboriginal communities, placing increased pressure on them to accept projects like the radioactive waste dump.

The nomination of the Muckaty site in the Northern Territory was originally made with the promise of \$12





million compensation for a small group identified as the exclusive Traditional Owners. While a small group of Traditional Owners support the dump in return for financial compensation, a larger group have been ignored and they have initiated legal action in the Federal Court challenging the nomination of the Muckaty site.

Even though the court case is unresolved, the Government has passed legislation targeting Muckaty as the only site under active consideration for a radioactive waste dump. The National Radioactive Waste Management Act 2012 is draconian, overriding the Aboriginal Heritage Act and bypassing the Aboriginal Land Rights Act. It allows for the imposition of a dump on Aboriginal land with no consultation with or consent from Traditional Owners.

Muckaty Traditional Owner Penny Phillips said: "The Government should wait for the court case before passing this law. Traditional Owners say no to the waste dump. We have been fighting against this for years and we will keep fighting. We don't want it in Muckaty or anywhere in the Northern Territory."

The Central Land Council expressed "profound disappointment" at the passage of the National Radioactive Waste Management Act. David Ross, Director of the Land Council, said: "This legislation is shameful, it subverts processes under the [Aboriginal] Land Rights Act and is clearly designed to reach the outcome of a dump being located on Aboriginal land in the Northern Territory, whether that's the best place for it or not. This legislation preserves the Muckaty nomination without acknowledging the dissent and conflict amongst the broader traditional owner group about the process and the so-called agreement. The passage of this legislation will further inflame the tensions and divisions amongst families in Tennant Creek, and cause great stress to many people in that region."

Federal Resources Minister Martin Ferguson has refused countless requests to meet with Traditional Owners opposed to the dump. Muckaty Traditional Owner Dianne Stokes says: "All along we have said we don't want this dump on our land but we have been ignored. Martin Ferguson has avoided us and ignored our letters but he knows very well how we feel. He has been arrogant and secretive and he thinks he has gotten away with his plan but in fact he has a big fight on his hands."

Dianne Stokes is not alone. Many Traditional Owners are determined to stop the dump and they are supported by the Northern Territory Government, key trade unions including the Australia Council of Trade Unions, church groups,

medical and health organisations, and environmental groups. If push comes to shove, there will be a blockade at the site to prevent construction of the dump.

#### Uranium mining

The patterns of nuclear racism are also evident in Australia's uranium mining industry. Racism in the mining industry typically involves some or all of the following tactics: ignoring the concerns of Traditional Owners insofar as the legal and political circumstances permit; divide-and-rule tactics; bribery; 'humbugging' Traditional Owners (exerting persistent, unwanted pressure); providing Traditional Owners with false or misleading information; and threats, most commonly legal threats.

To give one example, the 1982 South Australian Roxby Downs Indenture Act, which sets the legal framework for the operation of the Olympic Dam copper-uranium mine in South Australia, was amended in 2011 but it retains exemptions from the SA Aboriginal Heritage Act. Traditional Owners were not even consulted. The SA government's spokesperson in Parliament said: "BHP were satisfied with the current arrangements and insisted on the continuation of these arrangements, and the government did not consult further than that."

That disgraceful performance illustrates a broader pattern. Aboriginal land rights and heritage protections are feeble at the best of times. But the legal rights and protections are repeatedly stripped away whenever they get in the way of nuclear or mining interests.

Thus the Olympic Dam mine is largely exempt from the SA Aboriginal Heritage Act. Legislation was passed specifically to exempt the Ranger uranium mine in the Northern Territory from the Aboriginal Land Rights Act. Native Title rights were extinguished with the stroke of a pen to seize land for a radioactive waste dump in South Australia. Recent NSW legislation exempts any uranium mines in that state from provisions of the NSW Aboriginal Land Rights Act. And Aboriginal heritage laws and Aboriginal land rights are being trashed with the current push to dump in the Northern Territory.

The situation is scarcely any better than it was in the 1950s when the British were exploding nuclear bombs on Aboriginal land.

*Jim Green is the national nuclear campaigner with Friends of the Earth, Australia and a former national committee member of the Australian Nuclear Free Alliance.*

# Nuclear power, warfare and global famine

Jim Green

A nuclear war using as few as 100 weapons would disrupt the global climate and agricultural production so severely that the lives of more than a billion people would be at risk, according to research findings released in April by International Physicians for the Prevention of Nuclear War and its Australian affiliate, the Medical Association for Prevention of War.

Working with data produced by scientists who have studied the climate effects of a hypothetical nuclear war between India and Pakistan, author Dr. Ira Helfand and a team of experts in agriculture and nutrition determined that plunging temperatures and reduced precipitation in critical farming regions, caused by soot and smoke lofted into the atmosphere by multiple nuclear explosions, would interfere with crop production and affect food availability and prices worldwide.

The report finds that:

There would be a significant decline in middle season rice production in China. During the first four years, rice production would decline by an average of 21% and over the next six years the decline would average 10%.

Increases in food prices would make food inaccessible to hundreds of millions of the world's poorest. Even if agricultural markets continued to function normally, 215 million people would be added to the rolls of the malnourished over the course of a decade. Significant agricultural shortfalls would lead to panic and hoarding on an international scale, further reducing accessible food.

The 925 million people in the world who are already chronically malnourished would be put at risk by a 10% decline in their food consumption.

Dr Helfand said: "The death of one billion people over a decade would be a disaster unprecedented in human history. It would not cause the extinction of the human race, but it would bring an end to modern civilization as we know it."

## Power and proliferation

The report on the catastrophic potential of nuclear warfare has important implications for the ongoing debate over nuclear power. Apologists for the nuclear industry trot out any number of furbies in their efforts to distance nuclear power from WMD proliferation, but the facts are in. There is a long history of ostensibly peaceful nuclear programs providing political cover and technical support for nuclear weapons programs – and an expansion of nuclear power can only exacerbate the problem.

Of the 10 nations to have produced nuclear weapons:

- Six did so with political cover and/or technical support from their supposedly peaceful nuclear program – India, Pakistan, Israel, South Africa, North Korea, and France.
- The other four nuclear weapons states (US, Russia, China, UK) developed nuclear weapons before nuclear power – but there are still significant links between their peaceful and military nuclear programs (e.g. routine transfer of personnel).

- Eight of the 10 nations have nuclear power reactors and those eight countries account for nearly 60% of global nuclear power capacity.

Examples of the direct use of nuclear power reactors in weapons programs include the following:

- North Korea's nuclear weapons tests have used plutonium produced in an 'Experimental Power Reactor'.
- Power reactors are used in India's nuclear weapons program – this has long been suspected and is no longer in doubt since India refuses to allow eight out of 22 reactors (and its entire thorium/plutonium program) to be subject to International Atomic Energy Agency (IAEA) safeguards inspections.
- The US has used power reactors in recent years to produce tritium for use in 'boosted' nuclear weapons.
- The 1962 test of sub-weapon-grade plutonium by the US may have used plutonium from a power reactor.
- France's civilian nuclear program provided the base of expertise for its weapons program, and material for weapons was sometimes produced in power reactors.
- Magnox reactors in the UK had the dual roles of producing weapon grade plutonium and generating electricity.

Pakistan may be using power reactor/s in support of its nuclear weapons program.

Nuclear power programs have facilitated and provided cover for weapons programs even without the direct use of power reactors to produce material for weapons. Nuclear power programs provide a rationale for the acquisition and use of:

- uranium enrichment technology (which can produce low enriched uranium for power reactors or highly enriched uranium for weapons);
- reprocessing technology (which separates spent nuclear fuel into three streams – uranium, high-level waste, and weapons-useable plutonium); and
- research and training reactors (which can produce plutonium and other materials for weapons, and can also be used for weapons-related research).

The nuclear weapons programs in South Africa and Pakistan were outgrowths of their power programs although enrichment plants, not power reactors, produced most or all of the fissile (explosive) material used in weapons.

Research and training reactors, ostensibly acquired in support of a power program or for other civil purposes, have been a plutonium source for weapons in India and Israel and have been used for weapons-related research and experiments in numerous other countries including Iraq, Iran, South Korea, North Korea, Taiwan, Yugoslavia, and possibly Romania.

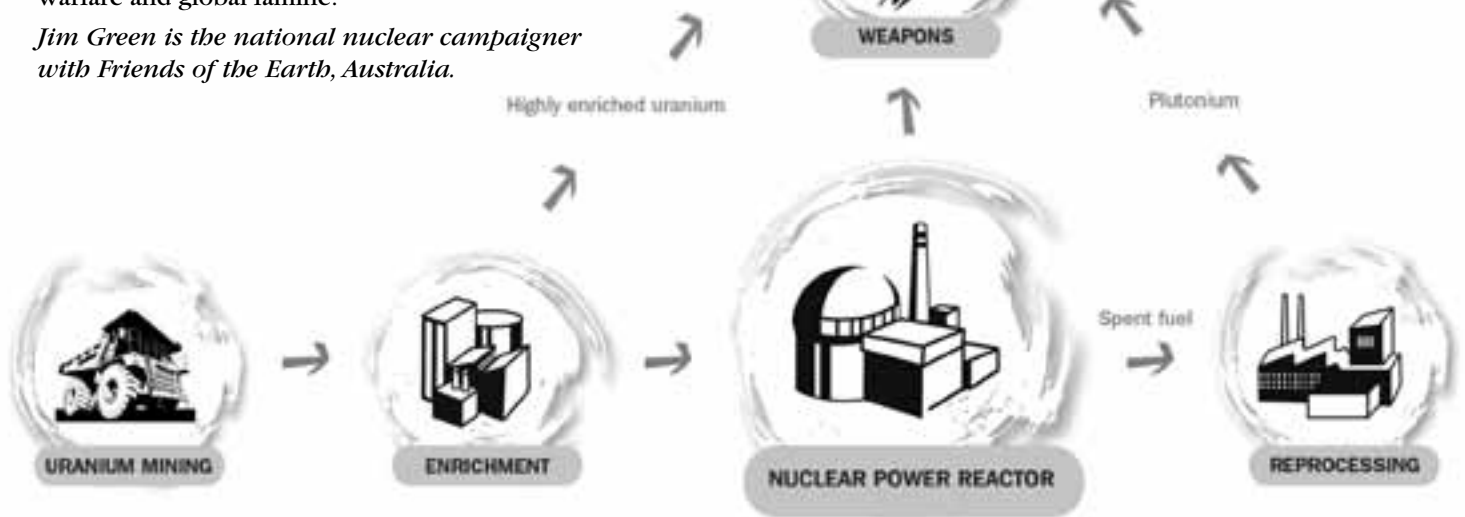
Nuclear power programs can facilitate weapons programs even if power reactors are not actually built. Iraq provides a clear illustration of this important point. While Iraq's

nuclear research program provided much cover for the weapons program from the 1970s to 1991, stated interest in developing nuclear power was also significant. Iraq pursued a 'shop til you drop' program of acquiring dual-use technology, with much of the shopping done openly and justified by nuclear power ambitions.

According to Khidhir Hamza, a senior nuclear scientist involved in Iraq's weapons program: "Acquiring nuclear technology within the IAEA safeguards system was the first step in establishing the infrastructure necessary to develop nuclear weapons. In 1973, we decided to acquire a 40-megawatt research reactor, a fuel manufacturing plant, and nuclear fuel reprocessing facilities, all under cover of acquiring the expertise needed to eventually build and operate nuclear power plants and produce and recycle nuclear fuel. Our hidden agenda was to clandestinely develop the expertise and infrastructure needed to produce weapon-grade plutonium."

Power and proliferation – two sides of the same coin and a major factor to consider when weighing different energy options, all the more so in light of the report on nuclear warfare and global famine.

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



## More Information

The report,  
 'Nuclear Famine: A Billion People at Risk –  
 Global Impacts of Limited Nuclear War on Agriculture,  
 Food Supplies, and Human Nutrition'  
[mapw.org.au/download/nuclear-famine-findings](http://mapw.org.au/download/nuclear-famine-findings)

Videos are posted on youtube - search 'nuclear famine'

More information on the links between nuclear power and WMD proliferation is posted at  
[foe.org.au/anti-nuclear/issues/nfc/power-weapons](http://foe.org.au/anti-nuclear/issues/nfc/power-weapons)

## Australia's bid for the bomb

In 1962, the federal Cabinet approved an increase in the staff of the Australian Atomic Energy Commission from 950 to 1050 because, in the words of the Minister of National Development William Spooner, "a body of nuclear scientists and engineer skilled in nuclear energy represents a positive asset which would be available at any time if the government decided to develop a nuclear defence potential."

In 1968, government officials and Australian Atomic Energy Commission scientists studied and reported on the costs of a nuclear weapons program. They outlined two possible programs: a power reactor program capable of producing enough weapon grade plutonium for 30 fission weapons annually; and a uranium enrichment program capable of producing enough uranium-235 for the initiators of at least 10 thermonuclear weapons per year. Three years earlier, secret enrichment research commenced in the basement of a building at Lucas Heights.

In 1969, federal Cabinet approved a plan to build a power reactor at Jervis Bay on the south coast of New South Wales. There is a wealth of evidence – some of it contained in

Cabinet documents – revealing that the Jervis Bay project was motivated, in part, by a desire to bring Australia closer to a weapons capability. Then Prime Minister John Gorton later acknowledged: "We were interested in this thing because it could provide electricity to everybody and it could, if you decided later on, it could make an atomic bomb."

After Gorton was replaced as leader of the Liberal Party by William McMahon in 1971, the Jervis Bay project was reassessed and deferred and the Labor government, elected in 1972, did nothing to revive the project.

There has been lingering interest in developing nuclear weapons in Australia since the early 1970s – including interest in lowering the lead time for weapons production under cover of ostensibly peaceful nuclear activities. But the more important point is that the pursuit of a weapons capability waned when Australia became a nuclear weapons state – a weapons state by proxy as a result of the cementing of the nuclear alliance with the US through the construction of US military and spy bases in Australia.



# Wind turbines power mass hysteria

Simon Chapman

The history of medicine contains many bizarre episodes of mass hysteria and psychogenic illness, with mass fainting by children during school vaccinations a common example.

Outbreaks of mass hysteria have common factors which contribute to their contagion. People “spreading” alarm about alleged harms are central to the proliferation of mass hysteria and today the internet is peerless as a disease vector.

While most people have heard of the placebo effect (when an inert “drug” like a sugar pill or a sham surgical procedure like inserting random acupuncture needles is followed by people feeling better) its opposite, the “nocebo” effect, is less appreciated.

A nocebo effect occurs when people feel ill or are convinced they have symptoms after being told that something is harmful. For the past few months, I have been collecting claims about adverse health effects made by opponents of wind farms. Today the total stands at 113 different diseases and symptoms in humans and animals

Other than perhaps the aftermath of a nuclear blast on population health, there is nothing known to medicine that comes close to the morbid apocalypse that is being megaphoned by anti-wind groups.

It is not just illnesses and symptoms that occur but “deaths, yes, many deaths mainly from unusual cancers”, which have strangely never come to the attention of any coroner.

Did you know that wind turbines can cause lung cancer, leukaemia, diabetes, herpes, “electromagnetic spasms in the skull”, infertility and the ghastly sounding “loss of bowels”?

Any very common problem together affecting literally millions of people across Australia (sleep problems, high blood pressure, lack of concentration, forgetfulness, children doing poorly at school, nosebleeds and muscle twitches) can all be explained by wind turbine exposure.

Nothing else is relevant if you live near one. But there are some benefits too. Those who are overweight can lose kilograms through exposure to wind turbines, but the excessively slim can gain weight as well!

Is this magic?

It’s not just humans that are affected. Did you know that “seagulls no longer follow the plough in areas near wind turbines ... the seagulls have learned that the worms have all been driven away ... They must go elsewhere for their food.” This can happen as far as 18 kms from a turbine!

Whales have their sonar systems disrupted, chickens won’t lay, and sheep wool is poorer in quality.

Tragically, a “peahen refused to go near a peacock” and dogs “stare blankly at walls”, ignoring owners. Never seen a dog like that.



It's not just the effect of turbine exposure that causes harm, but leaking "stray or tingle electricity" generated by the turbines can mysteriously travel through the soil with disastrous consequences. This has resulted in 400 goats "dropping dead" in New Zealand, dairy cows being "shocked through milking machines", and almost every known malformation in birds and farm animals.

Many of the above have been folded into a new disease entity called "wind turbine syndrome" by an American doctor, Nina Pierpont, set out in a vanity press book K-Selected Books run by herself and her partner.

"Wind Turbine Syndrome" appears not once in the US national Library of Medicine's online PubMed library of over 21 million biomedical papers. But that's not stopped this psychogenic "syndrome" bouncing around to the tune of 154,000 Google hits.

Pierpont's Australian counterpart is an unregistered South Australian doctor, Sarah Laurie, who travels about spreading the bad news. With a straight face, Laurie told a recent meeting of mostly bussed in protesters in the Victorian town of Mortlake that just one night in a house in proximity to a wind turbine had "just about everybody ... every five or ten minutes needing to go to the toilet."

Let's assume the residents went to bed at 11 and woke at 7; that would be 48 to 96 times a night for each person. Is she taking the piss?

The Victorian Government has introduced a 2 km setback rule for wind turbines for any residence, and the NSW government currently has the same distance out for public discussion. The NSW Health Department has sensibly advised that any decision on setbacks cannot be made on the basis of any evidence of harm to health.

Seventeen reviews of the evidence back this up with the NHMRC soon to add an eighteenth. If that too should clear turbines, you can bet the anti-wind lobby has already rehearsed why it too should be ignored.

It is easy to find claims on the web that turbines can bring on symptoms within hours or even minutes of exposure. It's something of a problem then that of the 150,000 turbines around the world, only a small fraction have generated complaints, and that with many having been erected in the 1990s, the "epidemic" of wind farm complaints had its beginnings several years later.

And you will search in vain to find anyone deriving income from hosting turbines who is complaining: money, it seems, is a magic cure. Opponents retort that these people are gagged by confidentiality clauses, but common law claims of negligence are never voided by contracts.

Political acquiescence to the NIMBY and turbine-rent-envy driven culture of complaint about wind farms threatens to seriously hobble Australia's ability to meet carbon reduction targets. Meanwhile, the great majority of the public supports wind power and nations like China and India are surging ahead in wind-energy production.

*Simon Chapman is professor of public health at the University of Sydney. Twitter: @simonchapman6*

*This article was first published by the ABC on 23 May 2012.*

## More Information

Teresa Simonetti and Simon Chapman,  
'Is there anything not caused by wind farms?'  
<http://tobacco.health.usyd.edu.au/assets/pdfs/publications/WindfarmDiseases.docx>

Simon Chapman and Teresa Simonetti,  
'Summary of main conclusions reached in 17 reviews of the research literature on wind farms and health'  
<http://tobacco.health.usyd.edu.au/assets/pdfs/WindHealthReviews.docx>

# ART AUCTION FUNDRAISER

**Art Auction Fundraiser for Friends of the Earth's  
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Collingwood



**Quality art donations sought**

please contact Zin [ace@foe.org.au](mailto:ace@foe.org.au), 0408 165 735

# SA electricity generation: Good news, and better to come

By Ben Courtice

In May, EnergyQuest broke the news that wind power supplied 31% of South Australia's electricity in the last quarter. Solar panels added another 3.5% to put renewable energy's share in that state well above coal (26%) and getting close to gas (39.5%).

31% wind energy is up from 21% 12 months ago. In less than ten years, this has come up from close to zero. Now, wind energy is feeding through the interconnector to other states at some times, reversing the old trend of importing extra, dirty coal power into SA.

And SA is still building wind farms. The next stage of the Snowtown wind farm is one that has been given the green light. But the really exciting direction for SA is not just more wind: it's replacing their old baseload coal power plants at Port Augusta with solar thermal power.

Renewable Energy think tank Beyond Zero Emissions have released a report on how a combination of the latest in solar-thermal power plants, with some wind power, could easily replace the Playford and Northern power stations.

Modern solar-thermal power plants, like the Gemasolar plant in Spain, or the Tonopah plant being built in the US right now, are round-the-clock operations. They concentrate and store the sun's heat in giant insulated tanks of molten salts, and can draw on this heat to switch on the generator at any hour of night or day.

"Replacing the power stations with renewable energy will create 1800 jobs, improve the health of the local community, provide lower and more stable energy prices and will save 100-200 million tonnes of CO2 emissions over the lifetime of the project, compared to gas or coal " according to BZE's Mark Ogge.

<http://repowerportaugusta.org/node/9>

The smokestacks are only 3km from town residences at Port Augusta. David Shearman of Doctors for the Environment has pointed out that "independent analysis of health data for the period 1998-2007 [http://dea.org.au/images/general/Post\\_Augusta\\_health\\_studies.pdf](http://dea.org.au/images/general/Post_Augusta_health_studies.pdf)"\t "\_blank" showed the

incidence of lung cancer to be 1.45 times and for 2007-2009 twice the expected number" in Port Augusta.

"The community was angered to be informed by government that they were smoking too much and that air quality data measured by the operator Alinta was within EPA standards," he wrote.

<http://reneweconomy.com.au/2012/solar-thermal-can-cure-what-ails-port-augusta-14147>

There is currently a battle on between renewable energy and gas for which energy source will replace the brown coal generators. BZE's research shows that building baseload solar thermal power in Port Augusta will result in lower and more stable electricity prices. It will also provide better energy security.

These are important considerations. Leigh Creek coalmine, which currently supplies Port Augusta's coal, is expected to run out in the coming decade. Gas will be available, but linked to expensive and volatile export prices.

The idea of repowering Port Augusta has struck a chord. It has proved popular with locals. Unionists concerned for securing jobs have found that the low-employment model offered by gas is not so appealing. Local concern about cancer has also boosted the campaign. As has the inspiration of the round-the-clock solar-thermal power technology.

The *Repower Port Augusta Alliance* has been founded with local and statewide participation. Key state groups are already involved, including the Port Augusta Regional Council, Climate Emergency Action Network (CLEAN SA), and the SA branch of the Australian Youth Climate Coalition. A campaign group has been set up in Port Augusta itself.

The report by Beyond Zero Emissions and more information about the campaign can be downloaded at [repowerportaugusta.org](http://repowerportaugusta.org)

*Ben Courtice works on the Friends of the Earth Melbourne renewable energy campaign, and is currently the media co-ordinator at Beyond Zero Emissions.*



The Gemasolar solar thermal plant in Spain.



# Basin plan delivers a raw deal

Jonathan La Nauze

Craig Knowles, chair of the Murray Darling Basin Authority, has a plan for Australia's greatest river. It's a compromised plan, he admits, but trade-offs have to be made; river health balanced with the demands of irrigated agriculture.

Problem is, no-one has spelt out what the plan will actually do for the river. And with federal environment minister Tony Burke poised to clinch the deal with \$10 billion of public money, we deserve to know what we're paying for.

In the dying weeks of its five-month consultation period, Knowles' authority slipped 25 volumes of environmental analysis onto its website. The last came only a week before submissions closed.

Buried in the backwaters of these dense, technical reports is a meticulously documented story of ecological decline and policy failure. I spent the last days of the submission period piecing it together.

The Murray-Darling Basin covers 14% of the continent and contains some 30,000 wetlands spread throughout 23 river systems. If you're trying to measure the health of something so big and complex, where do you start?

The authority began by shortlisting 2442 key sites and selected a subset of them as indicators of broader system health, with particular attention paid to 24 iconic sites. For these indicator sites, 112 ecological targets were developed – benchmarks like keeping fish alive, or maintaining the health of woodlands.

Computer models then tested the plan, seeing how it measured up against these benchmarks. Of those 24 key sites, only one achieved its targets at safe levels. Another five scraped through with "high levels of uncertainty". Of the 112 ecological targets, Knowles's plan failed 48 of them.

But is that really so bad? These are "working rivers", after all. We can't expect to recreate pristine wilderness in Australia's most productive agricultural region.

Certainly not, but that was never the benchmark. The 112 ecological targets already embody massive compromise. Failure to meet them means simply that. Failure, not a balanced outcome. So how will the basin's 16 internationally significant Ramsar-listed wetlands fare under the plan? I was surprised at the starkness of the results. Of the 10 Ramsar sites subjected to detailed modelling, eight failed the Ramsar benchmark. Under Knowles's plan at least half of these wetlands would become so degraded Australia would be in breach of its international obligations.

There has already been significant coverage of what this means for the Coorong and the Chowilla Floodplain, South Australia's two main Ramsar sites. But the plan fails far more than just the long-suffering bottom of the river.

In Victoria's Wimmera lies Lake Albacutya, listed on the Ramsar Convention in 1982. A quintessentially Australian lake, it dries out from time to time. To survive the dry years, fringing red gum and black box woodlands need the lake



to fill up every so often, and stay full for a good two years. This also gives waterbirds a chance to breed. Events like this used to happen about once every 10 years, but the MDBA believes every 20 will keep things ticking over, and maintain the lake's Ramsar status. Under the proposed plan it will happen only once every 190 years.

A thousand kilometres away on the Balonne River system in northern NSW lie the Narran Lakes. They joined the Ramsar list in 1999. Of five ecological targets for the site, the proposed plan fails four. Unique communities of lignum and river cooba, grasslands and coolibah will permanently decline. And colonial nesting waterbirds are just going to have to find some place else to breed.

The story is repeated around the basin. Red gum and black box woodland in Victoria's Ramsar-listed Barmah and Gunbower forests will die out. Waterbirds will fail to breed in the lower Goulburn, Gunbower and the mid-Murrumbidgee. Native fish will struggle in the Edward-Wakool, the lower Macintyre and pretty much the entire length of the Darling River.

The more you look into the fine print, Craig Knowles's plan looks less like a bargain and more like a lemon. I am no ideologue. I am not arguing for a pristine river. But for \$10 billion I think we deserve a healthy one.

*This article was first published in the Canberra Times, 23 May 2012.*

# Slip, slop, slap: exposing the great sunscreen cover-up



Gregory Crocetti

In July this year, Friends of Earth and a range of other organisations launched ACCC complaints accusing two Australian manufacturing companies – Antaria Limited and Ross Cosmetics – of misleading and deceptive conduct. The complaint accuses the companies of deliberately marketing sunscreen ingredients as ‘non-nano’ or ‘nano-free’, when in fact they are nanomaterials.

Some of Australia’s biggest sunscreen brands have been duped, affecting sunscreen products such as Cancer Council Classic, Invisible Zinc Junior and Body sunscreens, Coles Sports and Woolworths Clear Zinc.

The scandal creates a crisis in confidence in sunscreen safety, with the responsibility falling firmly in the lap of the Therapeutic Goods Administration – if the TGA had properly regulated and labelled nano ingredients in sunscreen, we would never be in this mess.

The ‘Slip, Slop, Slap’ campaign reached almost every Australian through widespread advertising in the 1980s. And with the highest rates of skin cancer in the world, most Australians know it’s wise to limit our exposure to the sun’s harmful UV rays, particularly in summer months. However, the ‘Slop’ part of the Cancer Council’s famous message is compromised due to a growing public crisis in confidence in sunscreens, now made worse by new revelations. And tragically, even the Cancer Council – one of Australia’s most trusted brands – is caught up in the scandal along with others.

So how did we end up in this mess?

## Slippery product information

If you look on the back of a bottle of sunscreen, you’ll see a list of Active Ingredients. It’s there because active ingredients are highly reactive by their very nature and government regulators believe it’s important that the public has access to this information. But where does the nano fit in?

Two increasingly popular nano-ingredients used in sunscreen are the metal oxides – zinc oxide (ZnO) and titanium dioxide

(TiO<sub>2</sub>). Nano forms of these chemicals are used in sunscreen because they are transparent – whereas bulk forms of the same chemicals leave a white residue on the skin.

However, there are growing concerns around the health risks of using nano-scale versions of these metal oxides in sunscreens. Alarming little research has been conducted into the health risks associated with nano-ingredients in sunscreen. And from the little research that has been performed, we know that surface area plays a key role in the toxicity of nanomaterials, especially through the production of powerful free radicals. So, as we reduce the size of particles, the more potential there is for free radicals to damage proteins and DNA. Accordingly, leading Australian scientists have warned that in a worst-case scenario, nano-ingredients in sunscreens could increase the risk of skin cancer.

Some people are satisfied with the superficial benefits of clear sunscreen, and focus only on preventing the known risks of skin cancers. Many others, however, prefer not to take the risk while the scientific jury is still out and would rather choose nano-free sunscreens.

Given this widespread public concern over nano-content of sunscreens, ingredient manufacturers and brands have moved to fill the demand. Most notably, in 2007 an Australian company – Antaria Limited – moved to position its flagship product ZinClear IM as a ‘non-nano’ alternative to other zinc oxide sunscreen ingredients.

European regulators have passed laws requiring the safety testing and labelling on nano-ingredients in sunscreens from 2013. However, here in Australia the TGA has made it clear it has no intention of requiring safety testing or labelling of sunscreen nano-ingredients.

Since the nano-ingredients in our sunscreens aren’t labelled, information about which brands are nano-free is difficult to determine. In order to help consumers make an informed choice, Friends of the Earth has created the Safe Sunscreen Guide every year for the past few years. Previous

guides have surveyed over 100 sunscreen and cosmetic sunscreen brands and were based on signed statements from companies declaring if their products contained nano-ingredients or not.

Demand for our guide has been growing and growing, with over 50,000 guides downloaded last summer, and the Australian Education Union distributing hard copies to most Australian schools in early 2012. Increasing numbers of Australian sunscreen brands have moved to position themselves as nano-free and market this safe option to consumers – on sunscreen bottles, websites and in our guide.

## Sloppy claims

Pioneering new research from the National Measurement Institute reveals that four out of five sunscreen brands that were listed as 'nano-free' in our Safe Sunscreen Guide actually contained nano-ingredients in their products. Ironically, the only company that turned out to be nano-free in this study – Banana Boat (Sports) – was one of the brands that had refused to respond to our survey and was therefore listed in the 'May Use Nano' section of the guide.

Closer investigation of product information and patents has since substantiated these results, and it now appears that two Australian manufacturing companies – Antaria Limited and Ross Cosmetics – may have been deceiving their customers, affecting sunscreen products such as Cancer Council Classic, Invisible Zinc Junior and Body sunscreens, Coles Sports and Woolworths Clear Zinc.

These manufacturers only provided basic measurement data of large micrometre-sized 'particles' to their sunscreen brand customers. Critically, they did not mention the fact that the 'particles' they were supplying were manufactured aggregates or agglomerates (clumps) of nanoparticles.

This matters, because definitions of nanomaterials – both here and overseas – describe aggregates and agglomerates of nanoparticles as a nanomaterial. That's because the very high surface area of these agglomerates and aggregates (due to all of the little nooks and crannies) are similar to those of the individual nanoparticles that they are comprised of. And it is this increased surface area that makes them more likely to produce dangerous free radicals when compared to bulk particles of the same chemical.

At least 13 sunscreen brands have provided signed survey responses to Friends of the Earth declaring their sunscreens free of nano-ingredients. Many of these brands have also added labelling to their bottles and websites declaring their avoidance of nano-ingredients. But it seems they were all misled. And ultimately, this means that we've been buying nano-sunscreens for years, while believing otherwise.

## A slap in the face for the TGA

If this scandal raises greater public concern around the safety of sunscreens, it is a result of the Therapeutic Goods Administration's (TGA) failure to regulate the use of nano-ingredients in sunscreen. The government has failed to acknowledge the risks, failed to act with precaution, and failed to recognise the widespread public concern on this issue.

The TGA has repeatedly refused to acknowledge the risks (both known and unknown) presented by the nano-ingredients in sunscreens. The sum total of its efforts in the past few years amounts to a literature review released in 2009, where it concluded "the current weight of evidence

suggests that titanium dioxide and zinc oxide nanoparticles do not reach viable skin cells; rather, they remain on the surface of the skin and in the outer layer of the skin that is composed of non-viable cells".

However, the bulk of the skin penetration studies the TGA refers to have serious limitations and do not reflect 'real world conditions'. The vast majority of the studies are short-term, use excised skin and do not assess the role of penetration enhancers (used in some sunscreens).

The European Union's high-level Scientific Committee on Consumer Products ('Opinion on safety of nanomaterials in cosmetic products', 2007) and dermatologists here in Australia (Tran and Salmon, 2010, [www.idlc.com.au](http://www.idlc.com.au)) have also warned that further studies need to take into account abnormal skin conditions (such as eczema, acne or sunburn) and the possible impact of skin flexion on the penetration of nano-ingredients.

From July 2013, sunscreens sold in Europe will have to declare if the majority of zinc oxide or titanium dioxide particles are in nano-form. While this particular regulation is not perfect, it at least ensures that the nano-ingredients in sunscreen will be measured and have to undergo additional risk assessments. Closer to home, New Zealand will also be introducing a labelling regime for nano-ingredients in sunscreen in 2015.

These precautionary actions begin to address the genuine concerns raised by dozens of individual scientists and high level groups like the Royal Society (UK), which argued in 2004 that nano-ingredients in consumer products like sunscreens should have to undergo safety testing before use.

A recent poll of nearly 1300 Australians, commissioned by Friends of the Earth and carried out by The Australia Institute, found that 85% of those surveyed wanted nano-ingredients in sunscreens to be labelled. Furthermore, 92% of the people surveyed wanted nano-ingredients to undergo safety testing before use in sunscreens. These results show a clear community expectation that new technologies will undergo testing before use and that consumers will have a choice whether to buy them or not. However, the national regulator responsible for sunscreens, the TGA, continues to sit on its hands and reject these calls for labelling.

Paradoxically, the Australian chemicals regulator (NICNAS) has indicated that it intends to start implementing nano-specific regulation of active ingredients in cosmetic (secondary) sunscreens. This includes products such as moisturisers or lip balms with an SPF rating. Once in place, this would potentially create the situation where secondary sunscreens are regulated, while the TGA continues to do nothing to ensure the safety of primary sunscreens.

*Dr. Gregory Crocetti is a Nanotechnology Campaigner at Friends of the Earth Australia.*

## Take Action

Please email the Parliamentary Secretary for Health and Ageing, Catherine King MP, and demand the proper regulation and labelling of nano-ingredients in sunscreen. You can email her via our website: [nano.foe.org.au](http://nano.foe.org.au)



# Exposure to nanoparticles can have serious health impacts

Louise Sales

Groundbreaking research by scientists from Trinity College Dublin has found that exposure to nanoparticles can have a serious health impacts, potentially causing rheumatoid arthritis and other serious autoimmune diseases.<sup>1</sup>

The research raises serious concerns about the widespread use of nanoparticles in consumer products and the way these substances are currently manufactured, handled and disposed of. It also illustrates the need for a mandatory register of nanomaterials, so that these substances can be tracked and appropriately handled throughout the supply chain.

Nanoparticles are able to penetrate deeply into the lungs and are an important factor in the development of various diseases. Exposure to car exhaust fumes and cigarette smoke have long been recognised as risk factors causing chronic inflammation in the lungs. It has also been established that smoking can also trigger undesirable immune reactions. This can lead to the development of autoimmune diseases, such as rheumatoid arthritis, which incapacitates millions of people worldwide.

Recently, new concerns have been raised regarding the emerging products of nanotechnology which, if not handled appropriately, may contribute to the generation of new types of airborne pollutants. Therefore, the importance of identifying risks and hazards involved in the manufacturing, handling, use, and disposal of nanomaterials cannot be overestimated.

In their research, the Nanomedicine and Molecular Imaging team at Trinity College Dublin's School of Medicine, led by Prof. Yuri Volkov, investigated whether there was a common underlying mechanism contributing to the development of autoimmune diseases in human cells following exposure to a wide range of nanoparticles containing different physical and chemical properties.

The scientists applied a wide range of nanomaterials including ultrafine carbon black, carbon nanotubes and silicon dioxide particles of different sizes, ranging from 20 to 400 nanometres, to human white blood cells and cells derived from the lining of the airway passages.

At the same time, collaborating researchers from the Health Effects Laboratory Division, National Institute for Occupational Safety & Health (Morgantown, WV, USA) exposed mice to chronic inhalation of air contaminated with single walled carbon nanotubes.

The result was clear: all types of nanoparticles in the Irish and US studies caused an identical response in human cells and in the lungs of mice. Essentially, the nanoparticles caused a chemical to change in one of the common building blocks of our proteins (an amino acid). Proteins which incorporate this modified amino acid as building blocks can no longer function properly and are subject to destruction and elimination by the body's defence system.

Furthermore, once programmed to get rid of citrullinated proteins, the immune system can start attacking its own

## What are nanoparticles?

Nanoparticles are tiny particles 200 nanometres or less in size – with one nanometre being one billionth of a metre. The properties of matter change at the nano-scale, as the laws of classical physics give way to quantum effects. The physical properties of nano-sized particles can therefore be quite different from those of larger particles of the same substance. Altered properties can include colour, solubility, material strength, electrical conductivity and magnetic behaviour. Nano-sized particles also have a greater surface area relative to mass. This makes them much more chemically reactive.

tissues and organs, thereby causing the autoimmune processes which may result in rheumatoid arthritis.

Commenting on the significance of the findings, Prof. Volkov says that the research establishes a clear link between autoimmune diseases and nanoparticles.

## Government inaction

So what is the Australian government doing to protect us from exposure to nanoparticles?

Despite the growing body of evidence that nanoparticles behave differently to bulk forms of the same chemicals and may be cause serious health effects, in Australia nano versions of existing chemicals do not require separate safety assessments. This means that there are literally hundreds of consumer products out there containing unregulated and untested nanoparticles.

Furthermore, while other countries such as France and the Netherlands are in the process of introducing mandatory notification and registration for commercial use of manufactured nanomaterials, the Australian Federal government is still sitting on its hands.

Recently the federal government made public a report it commissioned on the feasibility of implementing a mandatory nanotechnology product registry.<sup>2</sup> The report concluded that “the feasibility of a nano-product registry is questionable”. This is despite the fact that France has already adopted a mandatory register for nanomaterials, with the first reporting year to be 2013.

The government commissioned the report following pressure from the Greens to introduce a national, publicly accessible, mandatory register for all manufactured nanoparticles in commercial use. The Greens argued that this register should include “companies who import, manufacture, use, supply, and/ or dispose of manufactured nanoparticles, including products that contain them” and that it should “treat manufactured nanoparticles as new chemicals, and require information on the size, shape, physicochemical properties and quantities of nanoparticles used.”



## Nano arms race

As 33 Australian nanotechnology scientists attended a conference in May to explore opportunities for collaboration with the US military, Friends of the Earth raised concerns that collaboration could contribute to a nano arms race, making the world a much less safe place.

Dr Gregory Crocetti from Friends of the Earth Nanotechnology Project said "This is an obvious move by the United States to extend its military dominance into the Asia-Pacific region. The US is understood to be making the world's largest investment in military applications of nanotechnology - accounting for as much as 90% of global nano-military R&D. Why are Australian nanotechnology researchers getting into bed with the biggest war machine on the planet?"

"The US Government spends hundreds of millions of dollars each year on military nanotechnology R&D, with applications including explosives, surveillance and lasers. However, since most of the research is classified it is not clear exactly what research is going on."

*The FoE statement is posted at: <http://tiny.cc/fyfxgw>*

Australian regulators currently have very limited information about the actual commercial use of nanomaterials. Responses to calls for voluntary information have been very low. A 2008 call from the chemical regulator NICNAS for information from industry on the use of nanomaterials resulted in just seven responses.

A register is required to enable accurate supply chain tracking of nanomaterials. This is vital to enable effective risk identification and risk management by workers, employers and the public.

Calls for a publicly accessible national mandatory register of companies dealing with manufactured nanoparticles, and of nanoparticles in commercial use have been made by the Australian Council of Trade Unions (ACTU) and the Australian Nano Business Forum (ANBF).<sup>5</sup>

The 2008 NSW Parliamentary Inquiry into Nanotechnology also recommended that a national mandatory labelling scheme be put in place for all manufactured nanomaterials used in the workplace. This is in contrast to the federal government, which recently announced it will not be introducing new regulations.

*Louise Sales is the Nanotechnology Campaign coordinator with Friends of the Earth, Australia.*

### Get Active

What can you do?

Get active in our campaign for the proper regulation of nanoparticles. You can find out more about the campaign and sign up for monthly updates via our website: [nano.foe.org.au](http://nano.foe.org.au)

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# Women, food sovereignty and 'green jobs' in China

Ariel Salleh

As social and ecological costs of global free trade add up, and domestic economies around the world fail to meet citizen's needs, alternative models of provisioning emerge from unexpected quarters. For example, in parts of China, women are showing how 'food sovereignty' might be realised together with environmental and cultural flourishing. These 'green jobs' already enact the rhetoric of Rio+20 – the call of business, governments, and UN agencies for a 'green economy'.

Maoist communalism in farming, health, education, and welfare largely disappeared with the 1980s reforms of Deng Xiaoping. Chinese socialism now assimilated aspects of neoliberalism as its leaders sought to position the country among major international powers. This move to economic competitiveness lives on in popular motivational slogans like 'Democracy is a means of Entrepreneurship!' and 'Let's All Get Rich Together!'

The outcome has been that China's surplus in GDP terms is as phenomenal as the growth of elegant cities like Hangzhou and Chongqing. But the regional cities fund public housing and welfare through the so called 'rationalisation' of rural settlement and land speculation, while investment in urban high rise construction runs to excess.

Party officials and corporate partners have developed complex inducement schemes for peasants to give up small holdings.

The process is a form of internal colonisation and primitive accumulation, emulating the historical rise of capitalism. But formation of a class structure that took hundreds of years to mature in Europe, is here compressed into a few decades. All levels of government design opportunities to foster a new middle class of entrepreneurs, while the displacement of landed peasants fosters an industrial working class dependent on consumerism for survival.

In the cities, these migrant factory workers encounter indifferent labour conditions and few citizenship rights. So too, families are often broken apart as children stay back in the village with grandparents. Central government subsidies to privately owned factories result in local air, water, and soil pollution. And as livelihood resources are turned over to industrial parks and export oriented monocultures, people face rising food prices.

It is said that China, a once self-sufficient agricultural nation, is heading for a future where only a quarter of its population will live in rural areas. The official solution is again neoliberal – with leases of overseas farmland to meet domestic needs already underway in Africa and Australia. As in the capitalist West, the global impact of carbon pollution from massive transcontinental food shipments is backgrounded.

The domestic costs of Chinese market socialism are also sidelined, yet these costs exacerbate social inequalities as

PeaceWoman Wang Shuxua in her abundant orchard showing young volunteers from Shanxi Agricultural University how to graft grape.





they are transferred from the centre of institutional power to the periphery. The externalisation takes the form of an extraction of surpluses – economic and thermodynamic: a social debt to inadequately paid workers; an embodied debt to women family caregivers; and an ecological debt drawn on nature at large.

This uneven development is threatening to erupt in class conflict. The Western media increasingly reports uprisings of migrant workers, and peasants claiming to have been cheated in land deals. And indeed, as urban workers organise around industrial exploitation, a new interest in peasant livelihood arises among village cooperatives and credit unions, NGOs, and intellectuals. A movement for rural reconstruction, documented by economist Wen Tiejun and Peace Woman scholars Lau Kin Chi and Chan Shun Hing among others, looks to Kerala for socialist inspiration, and to the Andean peoples of South America who press constitutional rights for nature as the basis of living well (*buen vivir*).

The Maoist revolution introduced modernisation with the promise of high yields through hybrid seeds, artificial fertilisers and pesticides, animal anti-biotics, irrigation and electrification. Three decades later, Deng would encourage a return to family based production but continued the agro-industrial 'green revolution' approach guided by government technical advisors. Today, many Chinese women refuse the violence of chemical farming – both environmental and medical fallout. As they say, 'nurturing the land is like nurturing a child'.

### Organic farming cooperatives

In mainland provinces like Yunnan, Sichuan, Shanxi, Hebei, and on the islands of Taiwan and Hong Kong, women are setting up organic farming cooperatives. They are re-examining traditional Chinese agricultural methods, using trial and error, observation and reflection, to regenerate their ecosystems with work that is really green. Their philosophy is at once ecological, feminist, and socialist, joining the logic of sustainability to the logic of community building, economic equity, and peace.

Bypassing the cynicism of government experts and often machine-minded farmer husbands too, these women seek the exhilaration and joy of embodied labour. They work in reciprocity with nature, developing their own animal based bio-liquid sprays for orchards and paddy fields; giving up weeding, leaving ground covers in place to encourage water retention, and composting green manure to re-energise soil organisms. They try to protect water catchments by opposing dam construction, and to preserve groundwater quality by converting waste oils into soaps.

Alongside subsistence produce of rice, oil, fish, chicken, pork, vegetables and fruit, plant medicines are promoted, as well as recyclable handicrafts like woven slippers, fishnets, or bamboo furniture. Some women manufacture and sell pure soy sauce and vinegar; others make weekly household produce deliveries to their communities by bicycle or van. As these pioneering Chinese women peasants, many of them city based, meet to compare crop yields and soil fertility, they also build up their own analytic skills and self-empowerment through cooperative learning networks.

Public outreach follows, with workshops and street stands to educate passers-by on the need to replace toxic industrial agriculture with clean local eco-sufficient provisioning. And there are cultural benefits to this place-based sustainability science: one group runs a 'happy kitchen' serving 'slow food' to students while honouring the names of peasant workers who grew it. The aim is to restore a sense of succession, celebrating the skills of earlier generations and passing these on.

Like ecological feminists on many continents, these women offer a grounded understanding of peace and security and an opportunity to heal socialism. Theirs is a politics that runs deeper than cultural differences, its first premise being that political wisdom and strength 'grow from everyday life' and from being part of 'the cycle that never stops'. The movement for rural reconstruction and food sovereignty in China dovetails with international alternatives to the failing global economy like commoning, solidarity economics, bioregionalism, permaculture, degrowth, urban community gardens, subsistence, and the principle of *buen vivir*. Here is a 'green economy' and 'green jobs' in the true sense of the word.

*Ariel Salleh visited China in 2011. Her books include 'Eco-Sufficiency & Global Justice: Women write political ecology', London: Pluto Press, 2009: [www.arielsalleh.info](http://www.arielsalleh.info)*

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# A new avenue of thought in Perth

Teri Saki

It may come as a surprise to some that Perth, Western Australia is not exactly a hotbed of dissent. White supremacy and flagrant consumerism seem to be a way of life for many in this mineral-centric town. Thankfully, the likes of the various Indigenous, refugee and environmental groups offer a refreshing oasis in this political and ethical desert.

Particularly inspiring have been the creative interventions by the Ban Uranium Mining Permanently (BUMP) Collective and the recent occupation of Matagarup Island by the Noongar Tent Embassy. Something else that is planting radical situations into the conservative Perth fabric is a new collective that came into being in late 2011.

The Unnamed Collective, as it is named (or not), broadly engages anarchist thought and praxis, each member bringing their own twist on the theme. Similarly, with each member of the Unnamed Collective belongs a story of how they got involved and what the group means to them. This article refers to the experiences of its author, a collective member since November 2011.

Feeling inspired by the global uprisings in the Middle East and Europe, and keen to engage in the building of an anti-capitalist movement in Perth, I found myself at some Occupy Perth General Assemblies. Teething problems are natural in the early days of any movement, but attempting to collaborate with Libertarians and conspiracy theorists in one corner, reformists in another and the flag-waving Left in the other, all under the trope of “We are the 99%” combined with the then messy process left me feeling somewhat troubled. Where were all the change agents? The libertarian-socialists and anarchists? The Autonomists? Folk who understand that capitalism is the problem and that there is more to social change than marching and chanting?

Then I discovered the Unnamed Collective, meeting weekly. They sounded like just what was needed. On the agenda was the establishment of a new publication; a magazine which was to contain serious political analysis and a space for radical, creative expression as an alternative to the current conservative Perth press. Added to this was a strong will within the group to balance thought with action – militant and creative direct action. Over the months, the Unnamed Collective has gained momentum. Our actions and community building events are too many to list here. The best advice I have for the curious reader is to check our website [unnamedavenue.org](http://unnamedavenue.org) in order to keep abreast of our activities and magazine, ‘Avenue’.

In terms of theoretical frameworks which inform what we do in the collective, we are probably most influenced by the ideas of The Situationists and understanding how Spectacle Capitalism operates. The Situationist Internationale, a European revolutionary group of the late 1950s and 60s held that there is an increasingly commodified version of reality that has been manufactured by capitalism, which is insidious and ubiquitous. They called it the Spectacle. Where life was once “being”, through Spectacle Capitalism it is merely “having” and “appearing”.

How this can manifest for people is somewhat differentiated but for activists it can be continually measuring success

along the lines of “how are we perceived?” and “did we get any media coverage?”. Whilst these may be valid questions in some instances, the Unnamed Collective has created different goal posts for itself. Our aim is to sneak radical ideas through gaps in the Spectacle, or create these gaps ourselves.

How we do this is through creative interventions or creating situations that enable people to participate in real life experiences, and simultaneously challenge the authority unmediated by the Spectacle. Participation is the key element, which in my experience has also been something that many of the collectives of Friends of the Earth also value highly.

The next thing the Unnamed Collective repeatedly checks itself against is the fun-meter, asking ourselves ‘did we have fun and feel liberated during our action against a mega-corporation, against CCTV cameras, for human beings and the planet?’ If the answer is yes, then we also know we have been successful at transforming the power relations inherent in the capitalist machine. As one of our members, Mar says, “We should never go to a political activity that leaves us going home feeling less powerful, less engaged and more demoralised than when we turned up.”

Importantly too, we understand that we do not exist in a vacuum and thus avoid sectarianism by acting in solidarity and collaborating with groups such as BUMP, Refugee Rights Action Network and Occupy. Recently, the Unnamed Collective facilitated some free schools with Occupy Perth, and we have supported Lizard’s Revenge – the anti-nuclear blockade, arts and music festival at Olympic Dam uranium mine in July 2012.

The future for the collective is unwritten. We are committed to continue building upon our success with the nascent publication ‘Avenue’, a housing co-operative is being initiated and there is burgeoning interest in the mining sector as our next port of call for direct action.

So, to the corporations who come to Perth to seek refuge from growing global dissent and to the state that protects them, we suggest that when they least expect it, they will be part of a situation that they cannot ignore, which the Unnamed Collective has created; a “reinvention of everyday life”.





From the Vault

## The Celibate Rifles

*Sideroxylon*  
1983

*"Does suburbia disturb ya?  
Is it more than you can stand?  
Better homes and gardens,  
Australian wonderland."*

Review by Anthony Amis

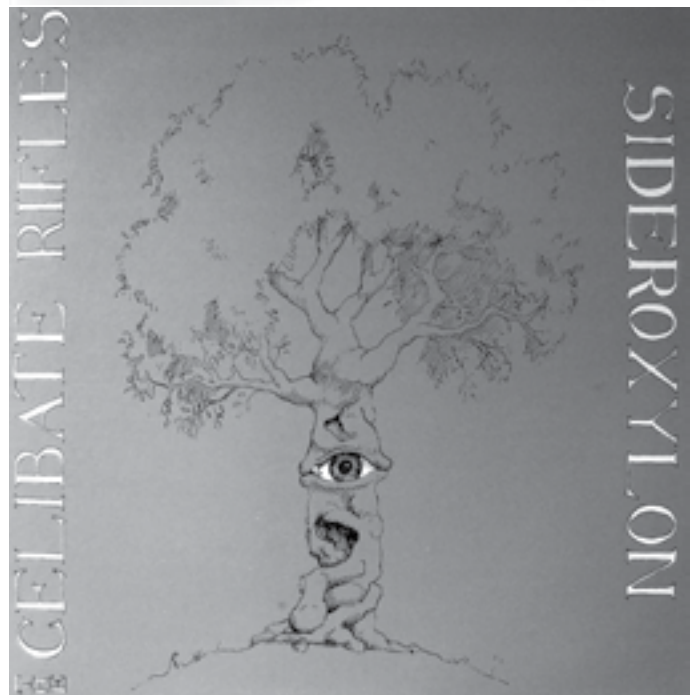
As a young fella stuck in the stupefying morass of early '80s society, it was dammed hard to crack apart the veneer of decades of pre-conditioning to get a taste of something real. Politico based rock music, particularly punk music certainly cracked the veneer. It actually shattered it completely.

Sydney's Celibate Rifles (a play of words on The Sex Pistols), whilst drawing some comparisons to the hardcore punk movement prevalent at that time, particularly in the United States, were something else again.

They often played with a speed that could categorise them as punk, yet could produce impressive slower music which was not so easy to categorise. They also weighed in with personal political issues through the brilliant observations of frontman Damien Lovelock.

The band contained a loopy daggyness that perhaps could only be created from a lifetime of drowning in Australian suburban life. This daggyness included subtle, yet complicated changes to song structures including street observations expressed with a dry laconic style often brimming with sarcastic inflections. The songs were also permeated with feelings of hopelessness, existential angst, boredom and spiritual disconnection. "Is my life just a cliché?" Lovelock asks on Where Do I Go.

Perhaps because of these feelings, the band opted to call their debut album, *Sideroxylon*, which in botanical terms is the Red Ironbark or Mugga Ironbark. The all seeing eye in the trunk of the tree hints at glimpses of deeper ecological truths contained within, something which became more evident on the band's second album released in 1984. How many young



people buying this record in 1983 would have heard of an Ironbark or even knew what one looked like?

Perhaps also, the title of the album hinted at the bands own feelings of connection with the Australian environment, perhaps the only place where they could get some kind of feeling. The record still stands up well after almost 30 years and is regarded by many as an Australian classic.





# Book Reviews

## What environmentalists need to know about capitalism

By Fred Magdoff and John Bellamy Foster

Monthly Review Press, 2011  
Paperback, 187 pages  
ISBN-13: 978-1-58367-241-9

Review by Ben Courtice

Working on issues of renewable energy it can seem like the tides of history are turning in our favour. Worldwide investment in renewable energy has outstripped investment in fossil fuels for several years. Yet greenhouse emissions are at record levels too. Something is wrong with this picture.

Magdoff and Foster provide an excellent background in capitalist economics and how they affect the planet's ecology. Soberingly, they point out that climate is just the most pressing of nine identified planetary boundaries we are at risk of crossing (or have already crossed).

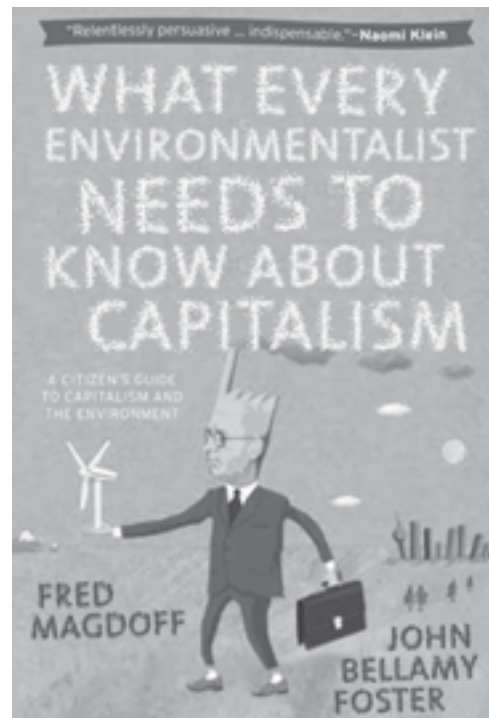
The boundaries are: climate change; ocean acidification; stratospheric ozone depletion; the nitrogen and phosphorous cycles; global freshwater use; change in land use; biodiversity loss; atmospheric aerosol loading; and chemical pollution.

Capitalism is an all-pervasive system because it must continue to grow in order to exist. Many ecologists realise that endless growth on a finite planet is an impossibility. But at the same time the pressures to conform to market policies to just get a small step forward places many of us in an invidious position.

How can we reconcile our hope for a truly ecological economy, not based on endless growth, with the fact we are forced for now to deal with an economy that is run that way? Those who work within the system often deride radicals - "this is too important to wait for the revolution" - but both sides often fail to find any ways to transcend the unfortunate situation we are in.

Magdoff and Foster look at questions like, can we have zero-growth capitalism? This would in fact not be capitalism, by their definition. When we talk of "capitalism" we must remember that the system is in fact composed of real "capitals" or corporate interests. They won't submit to ending their competition for growth and profits without a fight.

The arguments proceed with a nod to particular Marxist writers, principally Marx and Engels. But the main material in the book is refreshingly compiled with examples and quotes from the contemporary world. They manage a socialist critique of capitalism that does not devolve into convoluted abstraction or stale dogma. It is concise and readable.



And this book is aimed at active environmentalists, not academics or policy wonks. Not only does it provide a thorough exposé of the irrational heart of capitalism. It tries to give pointers for how to get out of the mess of the market economy. And here I will let the authors speak for themselves.

"There are things that have been done and that can be done even within capitalist society to lessen the system's negative effects on the environment and people. Much more can be accomplished, however, if we focus on what needs to be done, rather than on the limits the system imposes. ... We must push the capitalist system to its bottom line in terms of sustainability criteria - and then cross that bottom line: putting people and the environment before profits.

"History teaches that although capitalism has at times responded to environmental movements - without which the system might have by now completely destroyed the environment - at a certain point, at which the system's underlying accumulation drive is affected, its resistance to environmental demands stiffens."

This quote is quickly followed by a long list of practical reforms for which environmentalists can, and should, fight for. Most of them are conceivably reconcilable with capitalism, but taken together it is unlikely that capitalism could survive should they all be enacted. Campaigning for such reforms is one practical way to spur the "ecological revolution" that we need.

Readers well versed in the arguments here might have particular disagreements with the specific, socialist political theory the authors put forward. It is not some attempt at a comprehensive roadmap, but all the same this book is fundamentally practical. Its value goes well beyond preaching to the red choir: greenies of all stripes need to give it a read and think through its arguments.

*A long article on the same theme by Magdoff and Foster is online at [tiny.cc/twsegw](http://tiny.cc/twsegw)*

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