

chain. reaction

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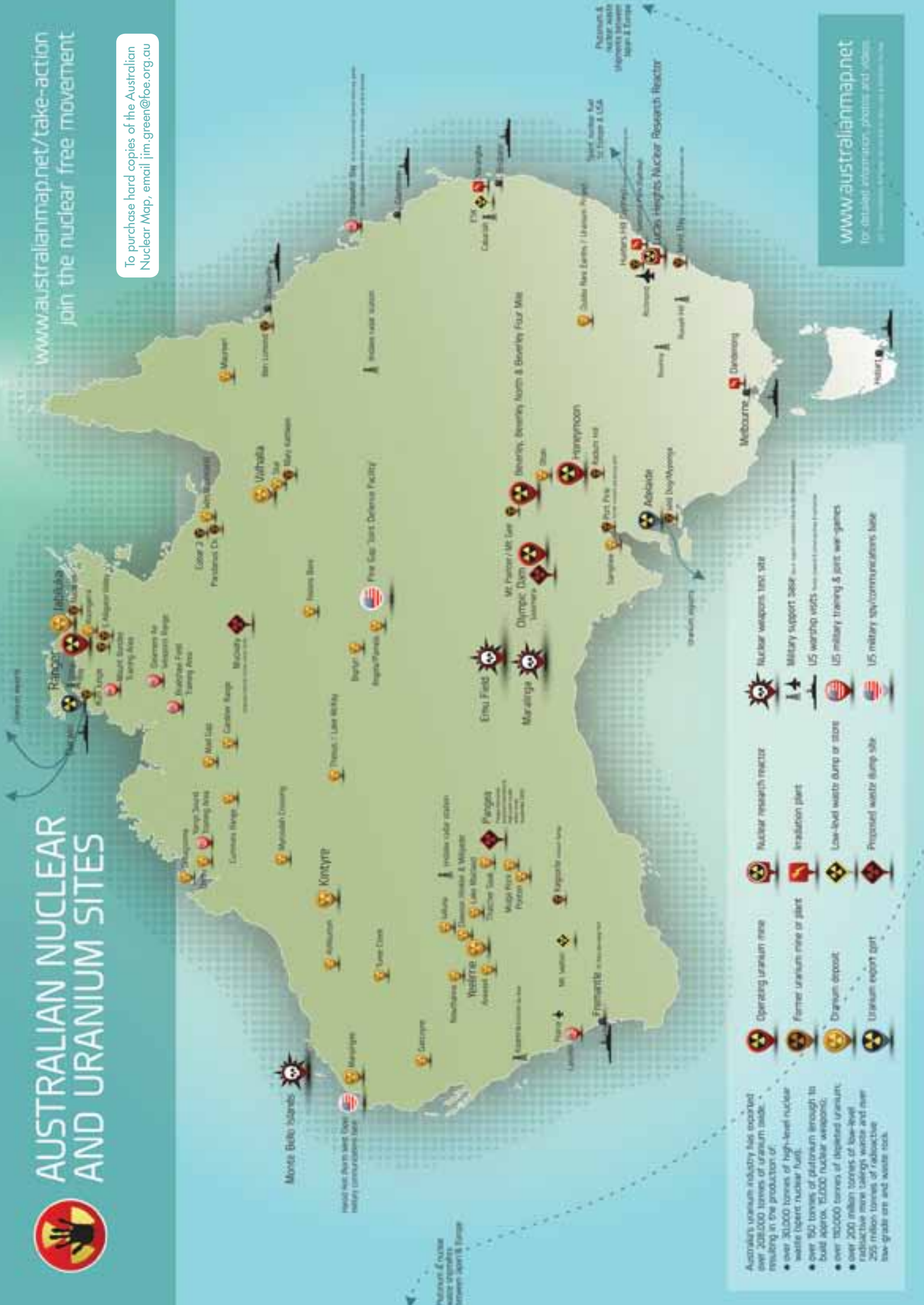
- Gillard's 'green tape' propaganda
- Deep Sea Mining – The Pacific Experiment
- River Red Gums face new threat
- The dirty business of coal in NSW
- Nuclear lobby spinning Fukushima
- Baillieu's resignation opens door for wind policy shift
- Campaign for an Iraq War Inquiry



AUSTRALIAN NUCLEAR AND URANIUM SITES

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Nuclear & nuclear waste sites between Japan & Europe

- Australia's uranium industry has exported over 200,000 tonnes of uranium oxide, resulting in the production of:
 - over 30,000 tonnes of high-level nuclear waste (spent nuclear fuel);
 - over 100 tonnes of plutonium through to build 4000, 15,000 nuclear weapons;
 - over 100,000 tonnes of depleted uranium;
 - over 200 million tonnes of low-level radioactive mine tailings waste and over 200 million tonnes of radioactive low-grade ore and waste rock.

- Nuclear research reactor
- Operating uranium mine
- Former uranium mine or plant
- Uranium deposit
- Uranium export port
- Nuclear weapons test site
- Military support base
- US warship visits
- US military training & joint war-games
- US military spy/communications base
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- US military spy/communications base

www.australianmap.net
for detailed information, photos and videos

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Front cover:

From her Observer Tree perch 60 metres up in
the canopy of Tasmania's beleaguered old growth
forests, where she spent 15 months during a
time of intense negotiations and ongoing forest
destruction, Tasmanian activist Miranda Gibson has
a personal message for Julia Gillard: 'Don't abandon
environmental protection'.

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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 or visit foe.org.au/local-groups

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

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

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Quit Coal activists occupy coal station

Chloe Aldenhoven and Dom O'Dwyer, activists from FoE Melbourne's Quit Coal campaign, scaled a large cooling tower at the coal-fired Yallourn Power Station in the Latrobe Valley in December. It was the longest occupation of a power station in Australia's history.

After battling repeated attempts to remove them, then terrible weather, Chloe and Dom passed the night attached to the cooling tower, surviving constant dripping through the gaps in the tarp, the tragic loss of a sleeping bag through clumsiness, and late night interviews from eager journalists.

Plans to unfurl a 21-metre long banner of a boiling thermometer, that read: "Government Funded Global Warming", had to be abandoned

because of more bad weather in the morning, but the climbers reached the top of the 120-metre tower and unfurled a small banner reading: "Invest in Renewable Energy Jobs, Not Handouts for Polluters".

By 5pm, after occupying the tower for a record 30 hours, Chloe and Dom descended voluntarily and were carted off by police and charged under draconian laws.

Yallourn is one of the most emissions-intensive coal fired power stations in the world. Given the decrease in grid power consumption and the increase in electricity produced from renewable sources, it also provides unnecessary extra capacity that could be decommissioned without endangering supply.

The site has been plagued by a series of other problems, with the mine flooding earlier in 2012, causing the entire power station to shut down for a week. The massive amounts of water remaining in the mine, contaminated with mercury, lead, arsenic, cadmium and other toxic substances found in coal, were still being pumped into the local river system later in the year, threatening fishing, tourism and farming in the region and posing a risk to the health of people downstream.

"Yallourn is a dangerous relic that continually poses a threat to local communities and vital ecosystems in the region, whilst making a huge contribution to dangerous changes in our climate," said Quit Coal spokesperson and climber Chloe

Aldenhoven. "All of this has not stopped the federal government from giving China Light and Power, the owner of Yallourn, \$257 million in handouts this financial year dressed up as 'compensation' for the carbon tax."

Quit Coal argues that the money should go towards investing in a renewable energy manufacturing sector, focussing on creating jobs in areas that are currently dependent on coal. Quit Coal proudly supports the Earthworker Cooperative, an organisation that is actively building this alternative.





Olivia Aripa, Papua New Guinea; Maureen Mopio Jane, Radio 4EB; Lolita Kaumauti, Kiribati.

Climate Frontlines

On Thursday February 14, the FoE Brisbane Climate Frontlines collective hosted a public information evening with three Pacific Island women in Australia for a program focusing on micro-finance for climate-change-related sustainability projects, organised by Sisters 4 Sustainability.

After participating in the Canberra conference of the International Society for Human Ecology and Sustainability, they completed the rest of the initial stage of the program in Brisbane. The information evening in Brisbane was an opportunity for them to share with a wider audience both the challenges their communities are facing and the creative responses they are developing.

Olivia Aripa, a great grandmother, nurse, midwife and a respected elder from the Popondetta area in Papua New Guinea, described how extreme rainfall events have destroyed many crops, as well as plants used for producing handcrafts for daily use and income generation, making it very difficult for the women to provide for their children. The impact on local infrastructure has meant that some basic services, such as access to school for small children, are no longer available.

Olivia has initiated a number of programs to help local women and children adapt to these changing circumstances and is seeking help to expand a small flower marketing business to support the programs financially.

"It's war", said Senolita Vakata, describing the struggle against the impacts of climate change on Ha'apai, a low-lying group of islands in the Kingdom of Tonga. Traditionally, people have settled in coastal areas, for ease of access to the sea. However, their houses are now flooded with sea water on a regular basis and their coconut palms dying with their exposed roots - due to coastal erosion - being burnt by the sun. Senolita has been able to access resources to help the people build new houses away from the coast, but this will depend on the allocation of land under the government-controlled land holding system. In any case if they do move inland, they can only hope to eventually meet the encroaching sea on the other side of the island.

Lolia Kaumati, a former civil servant, and now Secretary of the national women's organisation, described the situation in Kiribati. Their islands

are ravaged by floods and rising sea levels, leaving roads impassable, bridges and causeways destroyed, houses flooded and crops ruined. The atolls are long and narrow and the original soil is being replaced by an infertile substance. Because of the increasing salination and degradation of the underground water supply, the children are contracting diseases and the dwindling food supply of local fish and crops make people more dependent on outside help.

It is now clear that migration options will be needed. The question is where to. And how ensure the preservation of the Kiribati culture. Furthermore, how can people without financial resources move without assistance? The New Zealand government demands \$25 even to lodge an application to move there. One of the biggest challenges in the near future will be to develop a clear migration and resettlement plan, and Lolita hopes to be involved.

The Climate Frontlines were pleased to be able to include these women in their network of Pacific contacts, and to facilitate an interview by Maureen Mopio Jane, part of the Women's Profile team at Brisbane Radio 4EB.

Time to protect Victoria's farmland

In 2012, community concern about the threat of new coal and gas operations, especially coal seam gas (CSG), pushed the Victorian government to ban the use of dangerous BTEX chemicals and place a moratorium on the process of fracking for gas (see Chain Reaction #116).

The moratorium will finish shortly and the government has made it clear it wants to see renewed expansion of the fossil fuel industry.

Early in 2013, mining magnate Gina Rinehart bought into the emerging Victorian coal and gas sector. Her company has bought into local company Lakes Oil, and placed climate sceptic Ian Plimer and former politician Alexander Downer on the Lakes Oil board.

FoE has been tracking Lake's activity for a year now, and highlighted poor management of some previous operations. They are currently drilling for shale oil in Gippsland, waiting for the moratorium on fracking to end so they can continue their Tight Gas operations, and hold three exploration licenses for brown coal.

Community concerns remains strong, yet the government maintains that farming and gas production can co-exist. In response to the government's refusal to implement an inquiry into the likely impacts of new coal and gas operations on the land, water, people and economy of Victoria, FoE has launched a new campaign to encourage land owners to protect farmland.

Under section 7 of the existing Mineral Resources (Sustainable Development) Act, the government can create No Go zones for coal and coal seam gas. FoE is encouraging local communities and land owners to demand the government provide this protection.

More information: melbourne.foe.org.au/?q=node/1215

Our petition is posted at: communityrun.org/petitions/protect-gippsland-farms-from-coal-and-gas

Protect Arnhem Land NT

Protect Arnhem Land NT is a new campaign group that has affiliated with Friends of the Earth.

Over 40 potential petroleum exploration sites exist off the coast of Arnhem Land. Little information has been made public about the potential impacts. In response to this alarming and disrespectful process so far, a group of Northern Territorians have formed Protect Arnhem Land (PAL), a group consisting of local residents of Maningrida Community including Traditional Land Owners. PAL will campaign for a just process for the people of Arnhem Land in relation to the new offshore mining permits and any future oil or gas proposals.

In its short history PAL has held meetings with the Northern Land Council and community members; held a public awareness day with over 250 people attending; obtained submissions from 42 traditional land owners in response to the exploration notifications; contacted communities across Arnhem Land; contacted local and federal MPs; and registered 20 new sacred sites offshore, across the Arnhem Land coast.

Email: protectarnhemland@gmail.com

facebook.com/protectarnhemlandNT

A website will soon be launched:
www.protectarnhemland.org

CounterAct

CounterAct is a new affiliate member of Friends of the Earth and has been launched to support communities in taking effective, creative, strategic nonviolent direct action on issues of environmental and social justice. We will be providing training in direct action skills, campaigning and community organising across Australia. If you would like to collaborate, suggest or request a workshop, or would like to share resources, get in touch.

Also, we are undertaking a needs analysis and 10-minute survey for what current training and capacity building needs are for community campaigns in Australia. We'd love to hear from you. You will also go into the draw to win a great book 'Re-Imagining Change' by smartMeme courtesy of our friends at Plan to Win. Check the survey and get in touch at www.counteract.org.au or email peacefulcommunityaction@gmail.com

Tax-deductible donations can be made at givenow.com.au/foecounteract and 100% of your donation will go towards supporting training and capacity building.

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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.



Eric Dooh at home in Goi village showing oil pollution.

Friends of the Earth International Online

Web: www.foei.org

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

Action alerts: 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

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

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

Resource efficiency through waste recycling

The European Union currently landfills and incinerates 60% of municipal waste. Valuable materials which could be recycled or re-used are being thrown away as rubbish, contributing to demand for more raw materials. In the case of textiles, for example, Europeans discard 5.8 million tonnes every year, with 75% going to landfill or incineration and only 25% being recycled. A new FoE report concludes that in order to move to a zero-waste Europe, higher recycling targets need to be accompanied with targets for reuse and waste prevention.

foeeurope.org/less-more-140213

Land grabs and human rights violations in Liberia

Palm oil companies are grabbing more than 1.5 million acres of land in Liberia and are violating the human rights of local communities, warn Liberian NGOs including FoE Liberia (SDI – Sustainable Development Institute). FoE International is backing the local NGOs' demands for renegotiation of corporate palm oil contracts. Many inhabitants have lost their farms and food sources, livelihoods, as well as culturally sacred sites to oil palm plantations. Civil society organisations are also concerned about large scale conversion of primary and secondary forest to palm oil plantations.

More information:
foei.org/simedarby

Dutch Court ruling against Shell

A Dutch court has ruled that Shell Nigeria is responsible for polluting farmlands in a landmark case brought by four Nigerian farmers and FoE Netherlands. The court said Shell's Nigerian subsidiary SPDC is accountable for damage caused by oil spills at Ikot Ada Udo, Akwa Ibom State, Nigeria.

FoE Nigeria's Executive Director, Nnimmo Bassey, who has played a pivotal role in bringing to light the havoc wreaked by Shell in the Niger delta, said: "This win for the farmers of Ikot Ada Udo has set a precedent as it will be an important step that multinationals can more easily be made answerable for the damage they do in developing countries. We anticipate other communities will now demand that Shell pay for the assault on their environment."

Though this is an important victory, the court did not return a similar verdict in the cases brought by plaintiffs from Goi and Oruma communities. The court ruled that sabotage was involved in those locations. The plaintiffs find it

incomprehensible that the court has allowed itself to be convinced by a number of blurry photos and poor quality video images submitted by Shell. With the plaintiffs, FoE International remains convinced that poor maintenance is the cause of the spills.

The plaintiffs and FoE Netherlands plan to appeal this ruling. They also plan to appeal the ruling that exonerates the Netherlands-based Royal Dutch Shell parent company, which owns 100% of SPDC shares. SPDC's profits, estimated at 1.8 billion euros annually, are deposited in the Netherlands. Nevertheless, under existing laws, Royal Dutch Shell cannot be held liable for the damage done on the basis of these facts alone.

The plaintiffs and local communities have been demanding that Shell cleans up oil pollution, compensates those affected and prevent further leaks from occurring. The communities of the Niger Delta depend primarily on the environment for their livelihoods, including farming and fishing.

More information: FoE Netherlands: milieudefensie.nl/english



Jagoda Munić elected chair of FoE International

Late last year Jagoda Munić was elected as the new chair of FoE International. Jagoda joined FoE Croatia as a volunteer in 1997 and was president of the group from 2001 to 2007. She has degrees in biology, library and information sciences, and pollution and environmental control. She has lead biodiversity research projects and public advocacy campaigns including an anti GMO campaign that resulted in one of the strictest anti GMO laws in the world. Outgoing chair Nnimmo Bassey said: "Jagoda's commitment and experience will inspire the wider Friends of the Earth federation. Her appointment gives FoE International a charismatic and talented new chair."

Get oil cowboys out of the Arctic!

FoE Scotland is campaigning against Scottish company Cairn Energy's program of exploration for marginal oil in Greenland which has so far been responsible for:

- Releasing hazardous substances that the Danish environmental authorities deemed "unacceptable" and "in violation of international regulations";
- Two chemical spills between 2009 and 2011; and
- Prospecting for oil in areas that at Cairn Energy's own admittance are "sensitive in terms of biodiversity" and are home to the IUCN Red List species blue whale, narwhal, polar bear and Atlantic halibut.

Sign the online letter at: act.foe-scotland.org.uk/lobby/18

More information, and to watch the Cairn Cowboy Calamity Video: foe-scotland.org.uk/cairn

Oil sands protesters arrested

Erich Pica, President of FoE USA, describes his experience protesting against the Keystone Pipeline System, a partly-completed pipeline to transport synthetic crude oil and diluted bitumen from the Athabasca oil sands region in Canada to multiple destinations in the US:

February 14 – Yesterday, I was arrested for the first time in my life! My hands were cuffed, alongside so many others, at the White House fence, as I joined 47 environmental and progressive leaders – including Bill McKibben of 350.org, Mike Brune of the Sierra Club, NASA climatologist Dr. James Hansen, Daryl Hannab, and civil rights leader Julian Bond – in sending a strong message to the Obama administration.

The rally and the actual acts of civil disobedience and arrest were at various times somber, joyous, raucous, inspiring, defiant and spiritual – but most of all they imbued in me a sense of powerful obligation to represent all the people affected by the pipeline.

Sitting at the White House gates I felt as if I was giving voice to the communities in Nebraska and Texas fighting the pipeline at their personal risk. I felt that I was giving voice to the tens of thousands of Friends of the Earth members who have urged the president to deny the pipeline. I felt that I was standing up for the future of my son, Zander, who will have to live with the decisions that all of us make today.

Mr. President, I, and the 47 protesters who were arrested - as well as the 1,253 arrested in 2011 - felt a moral obligation to risk arrest to send you a message to deny the Keystone XL: now it is time for you to meet your moral obligation and reject the pipeline.

foe.org/projects/climate-and-energy/tar-sands

Unjust beatings and detention in Sumatra

On January 29, police moved to disperse the crowd at an environmental protest in Sumatra, and beat and arrested at least 25 people. Most were released, but Anwar Sadat, the executive director of FoE Indonesia (WALHI) South Sumatra, remains in prison.

Online petition to free Anwar: www.change.org/ReleaseAnwar

AGRA's technology push in Africa

A FoE International report by Mariann Bassey describes the flaws with the Alliance for a Green Revolution in Africa (AGRA), a program largely funded by the Bill Gates Foundation. FoE argues that AGRA's corporate agenda risks compounding the problems it aims to solve. The Foundation's programmes may marginalise the vital role of women in traditional societies and lift control of seeds and farm management from community to corporate level.

More information: tiny.cc/10zitw

Ugandan activists regroup to protect Mabira forest

The Save Mabira Crusade, which includes FoE Uganda (NAPE), is vowing to resist fresh moves to give away the forest reserve to the Mehta Group for sugar cane growing. They are vowing to do whatever it takes to save the Mabira forest and other natural resources from degradation. They are accusing the president of resurrecting the Mabira debate to divert Ugandans from discussing prevailing national concerns including huge corruption scandals, especially in the Prime Minister's Office.

More information: natureuganda.org/save_mabira_campaign.php

FoE Cameroon examines lessons learned from forest governance project

FoE Cameroon (CEDCAM) continues to campaign tirelessly on illegal logging. Together with Global Witness, they published a report on Cameroon's engagement in the EU's FLEGT agreement with Cameroon on illegal logging in October 2012, and on 25 January they hosted a workshop examining lessons learned about illegal logging during the four years of the project on forest governance (Gouvernance Transparence Forestière). They also co-published a report advocating reform of the legal regime for large-scale land transfers in Central Africa.



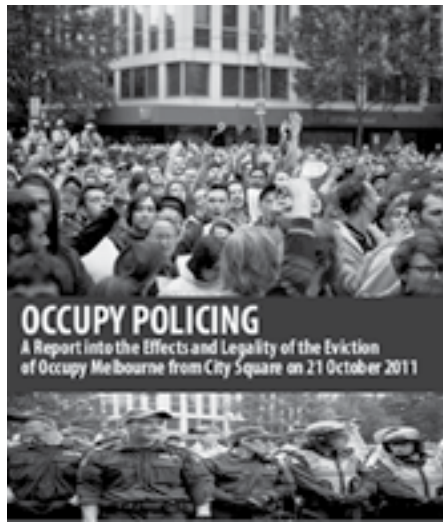
Lock the Gate Alliance – a Call to Country

The Lock the Gate Alliance (LTGA) has launched a Call to Country to demand real action to restrict inappropriate coal and gas mining. LTGA mapping shows that 437 million hectares of Australia is covered by coal and gas licences or applications – more than half of Australia. The LTGA is asking Australians to visit federal MPs in the lead-up to the September election.

The Alliance is calling on the federal government to:

1. Put in place an urgent moratorium on coal seam gas and other unconventional gas mining.
2. Create no-go zones to protect productive agricultural land, national tourism icons and all residential dwellings from coal and gas mining.
3. Strengthen federal environment laws to exclude coal and gas mining from important water sources, cultural heritage sites and sensitive environment areas.
4. Put in place national standards on coal and gas pollution and enforce compliance.
5. Stop using taxpayers' money to provide handouts to big coal and gas corporations and make the miners pay their fair share in taxes.
6. Reject current development proposals for coal ports, mega-mines, dams and unconventional gas wells in significant areas.
7. Conduct research into greenhouse gas emissions from mining and make sure they are properly accounted and fully paid for.
8. Hold a Royal Commission to investigate the management of coal and gas resources by all Australian governments.

www.lockthegate.org.au/calltocountry



Falling renewable energy costs

Renewable energy has entered into a new virtuous cycle of falling costs, increasing deployment, and accelerated technological progress, a report by the International Renewable Energy Agency (IRENA) has found. The cost of solar energy, for example, has dropped below the cost of diesel generation worldwide for communities living away from the electricity grid.

'Renewable Power Generation Costs in 2012: An Overview', launched during the IRENA annual assembly and at the World Future Energy Summit in Abu Dhabi, is the most current, comprehensive analysis of the costs and performance of renewable power generation today. It can be found on www.irena.org.

Its analysis of 8000 medium- to large-scale renewable power generation projects reveals that renewables are fast becoming the most competitive option for new electricity grid supply and swift grid extension, and are already the default economic solution for off-grid power supply.

Formally established in 2011, IRENA is mandated by 159 countries and the European Union to promote the sustainable use of all forms of renewable energy, and to serve as the global hub for renewable energy cooperation and information exchange.

Occupy Melbourne policing report

The Occupy Melbourne Legal Support Team has written a report titled 'Occupy Policing: A Report into the Effects and Legality of the Eviction of Occupy Melbourne from City Square on 21 October 2011'.

The report documents protesters' experiences of policing and complements eye-witness accounts with an account of the relevant laws. Key findings including:

The policing of protesters had harmful and lasting psychological, physical and political effects on individual protestors as well as the right to political expression;

The various justifications relied upon by Melbourne City Council and Victoria Police to authorise their actions raise serious and as yet unresolved questions of law. There appears to be a lack of legal basis for the actions to forcibly remove Occupy Melbourne protesters from City Square on the 21 October 2011;

There was extensive use of force by police in arresting and policing protestors, including the use of chokeholds and 'snatch squads'; and

The police arguably acted outside of their legitimate powers and internal guidelines in detaining approximately 100 people pursuant to 'breach of the peace' powers. The place, conditions and length of detention varied, and protester statements attest to their disorientating and distressing effects.

The report's recommendations reiterate previous calls for an independent inquiry into the forcible removal of Occupy Melbourne. Tamar Hopkins, Convenor of the National Police Accountability Network and Principal Solicitor at the Flemington and Kensington Community Legal Centre, said: "The continuing failure of Victoria's systems of accountability to prevent, investigate, and punish police officers who abuse their powers as well as hold their commanding officers to account leaves all Victorians vulnerable to human rights abuses."

The report is posted at www.occupypolicing.org



Marlin Melis.

Koongarra permanently protected from uranium mining

Legislation passed through the federal Parliament on March 15, completing the incorporation of Koongarra into the Kakadu National Park of the Northern Territory. Uranium mining companies, most recently Areva, have wanted to dig up Koongarra but the government has agreed to follow the wishes of Senior Djok Aboriginal Traditional Owner Jeffrey Lee.

German scientific report slams Lynas

Lynas Corporation's Malaysian plant for refining rare earths ore concentrate mined in Western Australia has several deficiencies according to a study by scientists from the German Oeko-Institute.

The report finds that the environment is affected by acidic substances as well as from dust particles, which are emitted into the air in substantially larger concentrations than would be the case in state-of-the-art plants in Europe. The storage of radioactive and toxic wastes on site does not prevent leachate from leaving the facility and entering groundwater. Lynas Corporation lacks a credible plan for the long-term disposal of wastes.

The Oeko-Institute report, 'Description and critical environmental evaluation of the REE refining plant LAMP near Kuantan/ Malaysia', is posted at www.oeko.de/oekodoc/1628/2013-001-en.pdf
More information on the Lynas plant: www.savemalaysia.org

Fukushima anniversary protests and vigils

Actions and vigils were held in an estimated 270 locations throughout Japan, and hundreds of other locations worldwide, to mark the second anniversary of the March 11, 2011 Fukushima disaster. On March 10, an estimated 40,000 protesters demonstrated around Tokyo, including in front of the Prime Minister's official residence, ministry offices and Hibiya Park. Perhaps the largest protests were held in Taiwan. A March 9 protest in Taipei was attended by around 100,000 people, and tens of thousands participated in protests in other major cities. Taiwan is located on the Pacific Ring of Fire, the same tectonically active region as Japan. Taiwan's three existing nuclear power plants are situated near to the coast on active fault lines. A partly-constructed fourth reactor is the subject of intense opposition. A referendum on the fourth reactor is expected to be held later this year, and opinion polls currently indicate majority opposition.

Australian NGOs hosted a speaking tour by Mr Hasegawa Kenichi, a dairy farmer from Iitate Village, which was entirely evacuated following the nuclear disaster, and Akira Kawasaki from the Tokyo-based NGO Peace Boat. A video featuring Mr Hasegawa is posted at vimeo.com/37987872

The fukushima2013.com website links to actions that were held in many other countries including the Netherlands, Italy, Belgium, Switzerland, New Zealand, India, Canada, the USA, and Mongolia.

Fukushima updates

Hundreds of survivors of the Fukushima nuclear crisis in Japan have filed a class action lawsuit seeking restitution of the region contaminated by radioactive materials. Lawyers for about 800 plaintiffs have filed the case with the Fukushima District Court.

How to clean a reactor site subject to multiple explosions, fires and meltdowns? "It's like going to war with bamboo sticks," said Takuya Hattori, a 36-year veteran of TEPCO's Fukushima nuclear plant. Keiro Kitagami, a

former lawmaker who headed a government task force overseeing R&D for the project, said: "This kind of job has never been done ... The technology, the wherewithal, has never been developed. Basically, we are groping in the dark."

Eighty percent of those who have evacuated from Iwate, Miyagi and Fukushima prefectures are unlikely to return to their home-towns, a survey has found. Of the 118 evacuees surveyed by the Mainichi Shimbun recently, 58% said they are considering settling down elsewhere and 22% have already done so.

Japan fell from 22nd to 53rd place in the Reporters Without Borders' most recent ranking of media freedom. This was attributed to a single factor – the lack of access to information related to the Fukushima nuclear disaster. Many reporters have met with restricted access, lack of transparency and even lawsuits.

Around 3,000 people work at the Fukushima Daiichi plant every day. Clean-up workers employed by the many subcontractors complain of the discomfort of long days spent in stifling protective masks, the stress of the job, and the relatively low pay. The health ministry has revealed that at least 63 Fukushima Daiichi workers were exposed to radiation levels higher than those registered in their personal records between November 2011 and October 2012. The number will grow as the ministry continues to investigate records of workers exposed to radiation between March and October 2011, when radiation levels were higher. By the end of 2012, 146 TEPCO workers and 21 contract workers had exceeded the limit of 100 millisieverts over five years, TEPCO said.

A probe by the Health, Labor and Welfare Ministry found violations – such as inadequate education and protection from radiation exposure, a lack of medical checks and unpaid salaries and hazard pay – at nearly half of the clean-up operations in Fukushima Prefecture. About half of the 242 contractors have been reprimanded for violations.

Market Forces

Market Forces is a new campaign affiliated to Friends of the Earth. The campaign's premise is that banks, superannuation funds and governments that have custody of our money should use it to protect – not damage – our environment. The campaign, established by Julien Vincent, is working with grassroots groups, organisations and individuals to turn the ship around.

Each year, Australian governments spend billions of dollars of public money on programs that encourage more coal, gas and oil to be extracted and burned. Market Forces estimates that the tax-based fossil fuel subsidies amount to over \$11 billion per year federally and are set to increase to over \$13 billion in the coming years.

A survey commissioned by Market Forces in January 2013 showed overwhelming opposition to fossil fuel subsidies. Three times as many people believe that fossil fuel subsidies in Australia are too high than those who thought they were too low, and 64% of Australians disapprove of the mining industry receiving a discount on their fuels such as petrol and diesel – a measure that costs the taxpayers \$2 billion per year.

The carbon price is expected to bring in just over \$4 billion in 2012-13. Yet expenditure on fossil fuel subsidies is almost triple this figure, so for every dollar spent to penalise carbon pollution, another three is being spent encouraging it. This is an enormous policy conflict and amounts to billions of dollars wasted on policies that cancel out each others objectives.

In 2009, Australia joined an agreement at the G20 in Pittsburgh to phase out inefficient fossil fuel subsidies in the medium term. Since then, Australia has tried to play down the commitment, avoiding the issue by claiming we have no subsidies that fall within the scope of the G20 commitment. Treasury disagrees, identifying 17 measures worth \$8 billion that would need to be cut for Australia to meet the G20 agreement. In his 2011 climate change review update, Professor Ross Garnaut also listed the elimination of fossil fuel subsidies as a key measure for reducing carbon pollution.

Market Forces – along with other groups – is working to expose ANZ's role in financing fossil fuel pollution. Bloomberg data shows that since the middle of 2010 ANZ has been party to loans worth nearly \$20 billion

to companies actively driving the coal expansion in New South Wales and Queensland. ANZ is also advising GVK on project finance and are playing a lead role in arranging debt for the Indian conglomerate's massive 30 million tonne per year Alpha coal mine in the Galilee Basin. Combined, these companies are proposing 46 new coal mining projects – either new mines or extensions to existing mines – that would have an annual output of about 340 million tonnes of coal per year, more than Australia as a whole currently produces.

Not all of these loans will have been for the express purpose of enabling specific coal projects, but some clearly are, such as the Whitehaven deal and the \$1 billion loan to Peabody to assist with their Macarthur Coal takeover. Nonetheless, all of these loans enable the continuing operation of companies that are gleefully taking part in a coal expansion that will render a safe climate unattainable and ravage parts of the local environment along the way. Banks that purport to believe in sustainability and a healthy environment should on principle be running a mile from companies involved in such wanton destruction.

In February, Market Forces examined the performance of 17 coal prospecting and mining companies trading in Australia and found a huge drop in their value in the past year. In the 20 months to February 2013, over one quarter of their total value disappeared. Much of the current coal prospecting in Australia is predicated on there being a hungry Asian market for coal beyond 2015. But with China now setting a coal consumption cap and uncertainty in India over their plans to increase domestic infrastructure and revise down plans for new coal growth, investing in Australian coal prospectors and small miners is looking far from a safe bet.

At the Market Forces website, you can sign up to receive updates, get involved or donate.

More information:

web: www.marketforces.org.au

twitter: @market_forces

facebook.com/MarketForces

email: contact@marketforces.org.au

River Red Gums face new threat

Will Mooney

The ancient river red gum forests that line Australia's iconic Murray River have faced more than their fair share of pressures in 200 years of white occupation. Now Friends of the Earth is taking action to counteract a new threat with an unlikely label: 'ecological thinning'.

The Barmah-Millewa forest – situated near Echuca, on both sides of the NSW/Victorian border – is the largest red gum forest on earth. It is a unique wetland forest ecosystem that shelters many threatened species and sustains important Indigenous cultural values. It is also an internationally significant Ramsar-listed wetland. Since European occupation of the Murray region, this forest has been fragmented and degraded. Logging and cattle grazing have altered the ecological character of the forest, introduced weeds and damaged soils. Drought and over-allocation of water has changed the natural flood regimes that nourished its plants and animals. Climate change has added further urgency to the problem.

Environmentalists, Traditional Owners, scientists and concerned locals fought hard to protect the priceless remaining tracts of red gum forest in NSW and Victoria. In 2009, new National Parks were created. In Victoria, 160,000 hectares were protected in conservation reserves along Victoria's Murray, Goulburn and Ovens Rivers corridor. Declaring that "we have to take action to protect this precious heritage", then Victorian Premier John Brumby ruled out further commercial timber harvesting in the new parks.

Today, in a frightening flashback, the Victorian and NSW governments have decided to send commercial logging machinery back into the National Parks, to conduct a kind of scientific experiment called 'ecological thinning'. The plan is to 'thin' around 400 hectares of forest in 22 nine-hectare plots. Mechanical harvesting machines will churn into the forest, felling trees below 40 cm in diameter. Just like a commercial logging operation, this 'thinning' has the potential to impact on threatened species, contaminate waterways, compact soils and spread pests and diseases.

The proponents of the trial aim to test the hypothesis that thinning will 'improve' the forests by reducing competition between stressed red gums and fostering habitat trees. However, Andrew Robinson, an independent scientist commissioned to review the plan, has admitted that the overall effect of the treatment is unknown.

What these forests really need is a return to natural flood conditions, which limit the growth of young saplings and allow the bigger trees to thrive. The trial involves subjecting a site of known national environmental significance to a disruptive experiment with no guaranteed ecological benefits.

Not only will the 'ecological thinning' program threaten those forests; it represents a foot in the door for commercial logging and exploitation of Australia's National Parks.



Coalition State governments in Victoria, NSW and Queensland have all recently announced plans to open Parks to grazing, logging, hunting and commercial development. These plans are part of an ideologically driven attack to appease the National's pro-development support base.

The Barmah-Millewa Collective of Friends of the Earth is responding to this new threat facing our precious red gum forests. While the Victorian and NSW State governments push ahead, Friends of the Earth has targeted Federal Environment Minister Tony Burke. We are running an online petition on change.org asking Minister Burke to keep the loggers out of Red Gum National Parks. Following lobbying and submissions from a range of NGOs, the project was recently declared a 'controlled action' under the Federal Environmental Protection and Biodiversity Conservation (EPBC) Act. It must now be assessed by public environmental report, ensuring a more rigorous evaluation of potential impacts on threatened and migratory species and the Ramsar listed wetland. This is a small but significant victory, yet there is more work to do.

River Red Gum forests have been through hard times, but these tenacious ecosystems have held up and flourished despite a litany of threats. Please help us to ensure they flourish on into the future. You can sign and share our online petition by visiting www.ourdarlingmurray.org and viewing the latest blog post. Sign onto our mailing list to receive campaign updates or consider donating to the campaign.

Will Mooney is Community Campaigner with the Barmah-Millewa Collective, Friends of the Earth Melbourne.

Baillieu's resignation opens door for wind policy shift

Leigh Ewbank

The resignation of Victorian Premier Ted Baillieu may pave the way for the repeal of anti-wind farm laws.

The Baillieu government introduced amendments to planning laws in August 2011. The measures comprised four changes that effectively ban wind farms in large swathes of the state. First, the policy establishes arbitrary 'no-go zones' for wind energy projects without undertaking any economic modeling or community consultation. Second, they establish 'no go' zones for projects within 5 kms of designated regional centres. Third, the current framework allows just one objector to stop any wind turbine within 2 kms – for any reason. And lastly, the policy designates local councils as the principle decision maker (or responsible authority) on wind farm proposals.

The combined impact of these changes makes Victoria the world's biggest wind energy NIMBY (Not In My Back Yard). The state's once lucrative pipeline of wind farm projects has been blocked and capital is fleeing interstate. Over the past 18 months, just one development application has been lodged with the department of planning, and that project is languishing in a drawn-out hearing.

Friends of the Earth research estimates Baillieu's anti-wind farm planning laws have cost \$887 million in lost or stalled investment; 650 direct jobs lost or stalled in construction; 54 ongoing jobs in management of wind farms; and 1,408 indirectly associated (flow-on) jobs. The flood of investment that has flowed to the South Australian wind energy sector confirms the adverse economic consequences of the policy.

In terms of climate change action, the laws have stalled at least 408 megawatts of clean renewable energy supply coming online and prevented carbon emissions savings of up to 1.6 million tonnes each year (equivalent to taking around 465,000 passenger cars off the road per year).

Traditionally, the Liberal Party was seen as the party of business and an ally of science and progress. Ted Baillieu's leadership allowed it to become captive to a Tea Party-style culture of anti-wind energy and anti-climate science extremism.

So what are the chances of new Premier Dennis Napthine adopting a more reasonable approach to wind farm policy? Politically, the priority for any new leader is to shore up support. The new Premier is tasked with turning the

government's faltering electoral fortunes around.

Adopting a pro-renewables stance will allow the new leader to appeal to Victorians who support renewable energy.

Polls show that wind energy remains highly popular, despite anti-wind hysteria. Polls commissioned by the Climate Institute and the Clean Energy Council register support for wind energy at 75% and greater. In the Clean Energy Council study, 60% of those polled viewed restrictions on wind farms as a missed opportunity to support the manufacturing sector – a finding that reveals voters see a clear link between the wind energy sector and manufacturing jobs.

Public awareness of climate change and demand for swift action will grow as more Australian weather records are broken in 2013. Australia has already seen the hottest summer on record and the need for ambitious climate change and renewable energy policies is growing.

Former Premier Ted Baillieu was ideologically committed to opposing wind energy. The Age reported the Baillieu had family connections to anti-wind farm lobbying. Dennis Napthine does not have the same ideological baggage that led to the introduction of such backward energy and planning policy.

Napthine has more pragmatic things to consider – economic benefits and jobs in his own electorate. As the local member for the South-West Coast, Napthine represents an electorate that has benefited greatly from the wind energy sector. A study by Sinclair Knight Merz estimates the Macarthur and Oaklands wind farms have pumped \$67 million into the local economy, employed around 900 people during construction, and created 52 ongoing jobs. Around two-thirds of Victoria's installed wind energy capacity is in Napthine's electorate.

Whether Premier Napthine will take a leadership position and abolish the current suite of anti-wind farm laws remains to be seen, but Victoria clearly has a better chance of sensible planning and energy laws with Ted Baillieu out of the picture.

Please sign the petition calling on Premier Napthine to dump Ted Baillieu's anti-wind farm laws at <http://ow.ly/iy5m3>

Leigh Ewbank is the Yes 2 Renewables campaigner with Friends of the Earth, Melbourne.

Organic Food Improving Health Services in Uganda

Laura Dunstan and Kristen Lyons

In the 2012 President's address in Uganda, Yoweri Museveni provided a clear mandate for economic development strategies that would secure national stability and a position in globalised markets. With priorities set upon economic growth through foreign investment, he championed land and environmental management frameworks that could encourage the development of resource productivity. Yet despite the strong cheer-squad for export-led development, this model often circumvents local livelihood security for subsistence and rural communities, while at the same time exacerbating poverty, hunger and other social problems.

Beginning in 2005, a small group of Australians established a collaborative partnership with the Katuulo Organic Pineapple Cooperative, located in the Kyazanga Sub County, around 300 kms south-west of Kampala, the nation's capital. The purpose of this collaboration was to work alongside the organic pineapple cooperative to explore the ways in which an export-led organic agriculture for development agenda might also enable local communities to realise their hopes and aspirations related to sustainable community development.

In 2007 we affiliated with Friends of the Earth Australia under the auspices of 'Mukwano Australia' to continue this work. It was apparent early on, and despite the social and environmental claims associated with trade in organic produce from the global South, that smallholder farmers' lived realities often fell well short of global industry and development agency aspirations and claims. In response, Mukwano Australia sought to work with the Katuulo Organic Pineapple Cooperative to realise their goal of establishing a local health clinic; thereby enabling them to access vital public health and medical facilities within their local community.

By 2008, and together with Mukwano's support, the construction of a health centre was completed and a bright future of easily accessible health services for the 1500 households in the Katuulo parish looked to be closer than ever. Yet when we arrived for a visit in July 2012, Katuulo was not quite the picture of progress we had expected, and a meeting with community members who had been involved in the cooperative since the inception of the project didn't go as we had hoped.

Somewhere over the years between establishing the project and our most recent visit, the community had experienced difficulties with the buyers of their produce, and mutually beneficial trade links had disintegrated in an environment that favours large-scale industrial farming techniques and yield-based production. Along with an empty building and some collapsed infrastructure (including pit latrines, which we had undertaken fundraising for in 2010) we were met with community members who expressed both frustration and confusion about expectations related to our various roles as part of this collaboration.

These setbacks that unfolded, including unfulfilled expectations, are hardly uncommon in cross-cultural and

grassroots development initiatives. Yet despite this setback, our meeting brought about a new life to the project; with the community embarking upon a new attempt to realise a much needed community health centre with previous lessons learnt.

In recent months, significant progress for the health centre has been made, including the negotiation of a deal with local health service providers of which the community is happy. Making the most of the current building, medical services have been extended from a nearby medical centre in the Kyazanga trading centre to the Katuulo community. Mirroring a successful centre in another community development project (the Suubi Centre - see www.hug.org.au/suubi), a medical team has taken on responsibility for securing medications and the supply of personnel. Meanwhile, the costs paid by the community members are being kept within locally appropriate means.

This marks a turnaround - in just seven months - from a stalled community development project to the current availability of services, medication, and three available beds. This situation will be monitored over the coming months to assess its ongoing progress. In order to support the stability of this positive movement more facilities are required including appropriate staff quarters, a storeroom, a kitchen, bathroom facilities and solar power. Reports from the medical staff say that these additions will allow them to push forward, and such uplifting community-based progress calls for support.

Mukwano Australia is now looking to support the Katuulo Organic Pineapple Cooperative with fundraising efforts to support these initiatives. Collaborative projects like 'Mukwano' push against the prioritisation of foreign investment and economic growth, exemplifying the importance of successful local development projects and the incorporation of community interests for sustainable futures. Please contact us (Kristen.Lyons@uq.edu.au) if you would like to support a community project enabling rural Ugandans to secure a healthy and self-sufficient future.

Laura Dunstan is a student, and Kristen Lyons is a senior lecturer, in the School of Social Science, University of Queensland.



Members of the Katuulo Organic Pineapple Cooperative with a newly arrived staff member to the clinic, inside the health clinic.



Save the nano-silver for where it's needed

Gregory Crocetti

For nearly a century we have used antimicrobials to wage a war on bacteria. We have learned to fight off these 'enemies' by using stronger and stronger antibiotics and other antimicrobial weapons. As bacteria have found ways to resist the lethal effects of one antimicrobial weapon, we have discovered and unleashed new antimicrobials.

However, there is now a real worry that we may be running out of options to tackle antimicrobial resistant (AMR) bacteria – the superbugs – those with resistance to a variety of different antimicrobials. If the problem of superbugs continues to worsen, it will in effect result in a return to the pre-antibiotic era, where a bacterial infection from a simple operation, a commonplace disease, or even a scratch could result in the loss of a limb or even the loss of a life.

In response to this looming health crisis, Australian scientists and health care experts have made clear recommendations for more than a decade. In order to maintain the effectiveness of antimicrobials in our hospitals – where they are needed most – we need to seriously reduce their usage elsewhere.

In some clinical settings, the medical community has been turning to silver as an antimicrobial of last resort to line wound dressings, catheters, stents and other sensitive clinical surfaces. However, as with antibiotics, the use of antimicrobials like silver ultimately drives the selection of bacteria with genes that make them able to withstand the usually toxic effects of silver. Thanks to the promiscuous nature of bacteria, they regularly share small pieces of DNA containing whole cassettes of genes which confer resistance to multiple antimicrobials. Indeed, there is already evidence of bacterial resistance to silver alongside antibiotic resistance in many clinical settings.

Relatively new developments in nanotechnology now allow the production of silver nanoparticles – commonly referred to as nano-silver – which can be embedded in a range of materials and devices. Because of its extremely large relative surface area, nano-silver is a much more potent antimicrobial than bulk silver.

Despite its clinical importance, hundreds of companies around the world have seen a marketing advantage in including nano-silver as an antimicrobial ingredient in everyday products. Here in Australia, many people already come into contact with nano-silver everyday. Antimicrobial experts such as Professor John Turnidge have warned that using such a powerful antimicrobial in these everyday products is not only unnecessary, but dangerous.

Concerns have been raised that the widespread non-clinical use of nano-silver as a surface antimicrobial will compromise the microbial diversity of our immediate environment (e.g. skin) and wider environment (e.g. soil and water). This in turn will eliminate the vast numbers of protective microbes, and allow the flourishing and spread of antimicrobial resistant bacteria. Furthermore, experts now warn that bacteria that are resistant to nano-silver are often also resistant to other antimicrobials and antibiotics.

Seriously restricting our uses of antimicrobials has been proven to lead to lower levels of antimicrobial resistance. But while Australian scientists and health care experts have recommended for more than a decade that we need to reduce overuse of antimicrobials, their warnings have not been heeded. The Australian Senate is currently investigating why so few of these expert recommendations have been implemented, and what effective steps can be taken.

Friends of the Earth Australia, the Public Health Association of Australia, the Australia Institute and the National Toxics Network have released a statement calling on the current Australian Senate inquiry to recommend urgent steps to seriously restrict the overuse of antibiotics in both human and agricultural applications. The groups are also calling on the government to restrict the unnecessary use of potent antimicrobials such as nano-silver in consumer products, in order to save them for hospital use. The time for stalling is over. Urgent regulatory action is needed if we are to preserve the effectiveness of available antimicrobials and ensure our nation's health.

A longer version of this article was first published on the ABC Environment website on 13 February 2013.

Testing reveals potentially dangerous free radical producing ingredients in sunscreen and cosmetics



Louise Sales

New testing from the National Measurement Institute (NMI) has revealed that many Australian sunscreen and cosmetic products still contain anatase titanium dioxide ¹, despite years of warnings of its extreme potential to generate free radicals which could damage DNA and protein.

The Friends of the Earth-commissioned testing found the chemical in six of the eight products examined. The sunscreen and cosmetic products affected include Nivea 'Kids', Coco Island 'White Zinc', Key Sun 'White Zinke', L'Oreal infallible 'Advanced Never Fail Makeup', Covergirl natureluxe 'liquid silk foundation' and Australis 'Powder Cream' Make-up ¹.

Scientists have warned that anatase titanium dioxide is "capable of destroying virtually any organic matter" (2) and questioned its use in sunscreens. The product we are most concerned about is Nivea Sun 'Kids Swim and Play' sunscreen, since independent analysis of the results by Uniquet found that more than 90% of the particles extracted from the product were nanoparticles. Due to their large relative surface area, nanoparticles of anatase titanium dioxide are much more reactive than larger particles of the chemical.

Five of the other products tested were found to contain anatase titanium dioxide, but it was not possible to determine whether this was in nanoparticle form, since the products contained a mixture of different metal oxides.

In 2008, it was revealed that nanoparticles of anatase titanium dioxide in sunscreen were reacting with sunlight to produce free radicals which were breaking down the coating of Colorbond roofs in a matter of weeks ³. Researchers found that the nanoparticles increased the rate of sun damage by 100 times. This discovery raised serious concerns about the potential impact on our skin – and some Australian sunscreen brands have reformulated to avoid using anatase titanium dioxide ⁴. Despite these concerns, the Federal Government has taken no action to remove these ingredients from sunscreen.

Based on a literature review it conducted in 2009, Australia's sunscreen regulator – the Therapeutic Goods Administration (TGA) – has repeatedly insisted that there is no evidence that nanoparticles can penetrate the skin so no regulation is needed ⁵.

We are concerned that the TGA has not kept up to date with science. An increasing number of studies suggest that nanoparticles can penetrate the skin ⁶ and Friends of the Earth believes this evidence warrants a precautionary approach.

Friends of the Earth is calling for an immediate ban on the use of anatase titanium dioxide in sunscreen and for the safety testing and labelling of other nano-ingredients in sunscreen. Europe will require the safety testing and labelling of all nano-ingredients in sunscreens from July this year ⁷. Surely Australians deserve the same protection as Europeans?

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Sunscreens exposed: stripping away the gloss

Gregory Crocetti

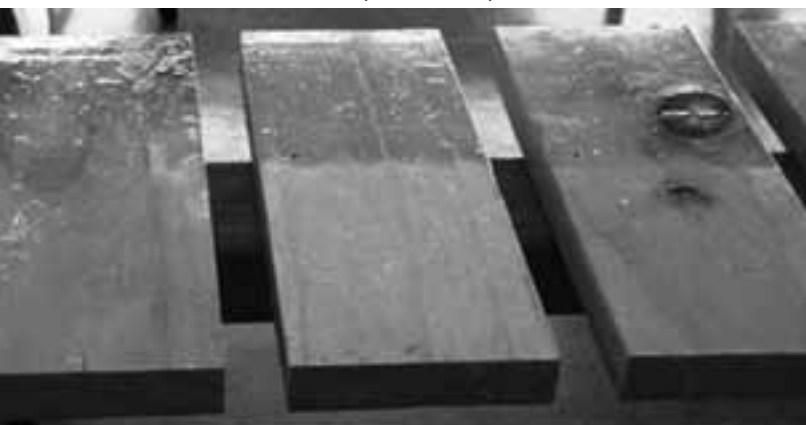
With the help of the students from Trinity College, Colac, Friends of the Earth has completed a Citizen Science Experiment investigating the effect that a number of popular Australian sunscreens have on the coating of Colorbond steel and on varnished timber. The results from the Colorbond steel were inconclusive. However, several popular sunscreens containing nanoparticles – including *Nivea Kids Swim and Play* – were found to cause serious damage to the wood varnish. These results are consistent with Barker and Branch's 2008 study and raise serious concerns about the continued use of nanoparticles of anatase titanium dioxide in sunscreen.

In 2008, industrial chemists Phil Barker and Amos Branch from Blue Scope Steel confirmed what many had suspected – that the new use of nanoparticles in sunscreens posed novel and uncertain risks. Of particular concern to these researchers was the use of sunscreens containing nanoparticles of anatase titanium dioxide by roofing installers, which came into contact with and caused damage to Colorbond panels as they were being installed. The scientists observed that the nanoparticles in the sunscreen were reacting with the sun to create free radicals, which were causing the roof coatings to break down up to 100 times faster than normal.

The project with Trinity College repeated key aspects of the Blue Scope Steel research – particularly the exterior exposure testing. This measured the extent of gloss reduction in pre-painted steel products that were exposed to different sunscreen formulations over a 12-week period. The experiment also investigated the extent of gloss reduction in wood panels coated with a popular weatherproof timber varnish.

Two matching sets of 17 steel and timber panels were prepared – one for each of the different sunscreens tested and one control. Sixteen different sunscreens were tested containing either chemical or mineral-based active ingredients. These were applied to the bottom half of each panel.

Visual appearance of gloss reduction in lower half of centre timber panel after exposure to Nivea Kids Sunscreen.



The two matching sets of panels were secured onto the roof of Colac Trinity College and a residential house in Melbourne and exposed from mid-November 2012 to mid-February 2013.

Following the 12-week exposure, sunscreen was removed by rubbing the panel surface with soft paper towels soaked with a warm detergent solution for approximately one minute, and then rinsed with water and air dried. Initial gloss measurements were made by students at Colac Trinity College, followed by measurements using a 60° gloss meter (Byk-Gardner) by Dr. Gregory Crocetti. Five gloss meter readings were taken from each half of each panel and used to calculate means and standard errors.

Visual observations by students largely agreed with the gloss meter readings. Results from the Colorbond exposure experiment did not offer any conclusive findings. However, clear trends emerged from both replicates of the timber panel exposure experiments. It was found that almost all sunscreens were able to remove some of the gloss from the polyurethane timber varnish, with an average gloss reduction of 41.5 % across the 16 tested sunscreens.

Nivea Kids Swim and Play sunscreen caused the largest amount of gloss reduction across all timber panels with an average gloss reduction measurement of 82.9 % ± 5.7 averaged from both Melbourne and Colac panels. In stark contrast, the average gloss reduction from both control panels was recorded at 0.3% ± 7.8, confirming that the gloss varnish did not naturally degrade during the 12 weeks of exterior exposure.

The results of this study are consistent with the 2008 Barker and Branch study, which found that sunscreens containing nanoparticles of anatase titanium dioxide had the greatest potential to create dangerous free radicals.

Take action:

turn up the heat on the government

Please contact the Parliamentary Secretary for Health, Catherine King and demand an immediate ban on the use of anatase TiO₂ in sunscreens and the proper safety testing and labelling of all nano-ingredients in sunscreen:

The Hon Catherine King MP
PO Box 6022
House of Representatives
Parliament House
Canberra ACT 2600

Tel: (02) 6277 4230

Email: Catherine.King.MP@aph.gov.au

Or contact her via our website: nano.foe.org.au

Antaria finally admits its sunscreen ingredient is a nanomaterial

Nearly six months after Friends of the Earth lodged an ACCC complaint against Antaria for misleadingly marketing the product as 'non-nano', the company has finally admitted that its ZinClear IM sunscreen ingredient is a nanomaterial. The ACCC is due to make public its findings regarding the complaint shortly.

Antaria made public the fact its sunscreen ingredient was a nanomaterial in an ASX announcement just before Christmas. Previously Antaria had strenuously denied that its product was a nanomaterial both to the media, the ASX and in its written correspondence with Friends of the Earth. A number of sunscreen brands used Antaria's ZinClear IM product in some of their products and had repeated its non-nano claims. Affected brands include Invisible Zinc, Cancer Council, Natural Instinct, ChemMart, Terry White Chemists, Pharmacy Choice, WotNot, Graham's SunClear, and Woolworths Select.

In February last year, Antaria confirmed in writing the patent that was the basis of their ZinClear IM product. Friends of the Earth commissioned a report from the National Measurement Institute, looking at this patent, which concluded ZinClear IM is a nanomaterial according to key definitions which have existed since 2010. Despite this, Antaria has been marketing the product as 'non-nano'.

Antaria's behaviour is completely unacceptable and we are hoping for a strong ruling from the ACCC to send a clear message to industry that companies can't get away with misleading conduct like this.

This scandal clearly demonstrates the need for nano-ingredients in sunscreen to be labelled. If the Government had made the testing and labelling of

nano-ingredients compulsory for companies we would never be in this mess. From this year, European regulators are requiring sunscreen companies to produce safety data and label nano-ingredients in sunscreens. Australians deserve the same protection as Europeans.

More information: nano.foe.org.au



Georgia Miller
and Gregory Crocetti

Union raises nanotech concerns

Union leader Paul Howes has likened nanotechnology to asbestos and called for more research to ease fears that the growing use of nanoparticles could endanger manufacturing workers.

"I don't want to make the mistake that my predecessors made by not worrying about asbestos," said the Australian Workers Union national secretary in a recent interview with the *Sydney Morning Herald*.

Mr Howes said he was worried that nanotechnology could be used to carry carcinogenic particles and he believed it needed more regulation and research.

Big thanks to nano-campaigners

It's been a sad start to the year for FoE's nanotech campaign with both Georgia Miller and Gregory Crocetti moving on to pursue exciting new projects.

Georgia founded the FoE Australia Nanotechnology Project six years ago and established FoE Australia as an important international voice on nanotechnology issues. She has worked tirelessly to build and support the campaign and she will be sorely missed. Georgia recently commenced a PhD and has decided to step down from her role in the collective to focus on her studies.

Gregory has been a valued member of the nano team since 2011 and is leaving to write an art-science book on microbial symbiosis for kids which we are all looking forward to reading! Fortunately Gregory isn't leaving the Nano collective altogether so we'll still be able to draw on his incredible knowledge and creative ideas.

Gillard's 'green tape' propaganda



Lauren Caulfield

Warburton, Victoria.

Responding to the threat of important federal environmental assessment and approval powers being handed over to state governments, the environment movement last year mounted a swift campaign to bring this to public attention and to derail Prime Minister Gillard's attempt to sneak the change through as part of closed-door COAG discussions in December.

The wave of scrutiny and community pressure saw Gillard suddenly remove the proposal from the COAG agenda. On the morning that the Business Advisory Forum opened in Canberra, it was reported in the *Sydney Morning Herald* that Gillard had removed the proposed transfer of Environment Protection and Biodiversity Act (EPBC) powers from the COAG meeting agenda. The decision was described as a "major blow to business ... and a victory for green groups that have complained about a watering down of standards".

The *Herald* reported that business leaders would be briefed directly by the Prime Minister about the decision at the pre-COAG Business Advisory Forum, but outside the private and exclusive briefing given to the Business Council, the Prime Minister gave no details on the change to the public, and made no comment in media coverage. It remains uncertain whether the proposal will come off the table for good or whether it will be revived when the political heat dies down.

The decision to defer plans to transfer EPBC Act powers marks an important interim campaign win, and a vital temporary reprieve from the terrifying prospect of state governments being placed in charge of issuing approvals for environmentally damaging projects - a prospect not unlike placing Dracula in charge of the blood bank.

The spate of campaign pressure to date, including Friends of the Earth's 'Nature: Not Negotiable' campaign, saw rapid community action around the country against the proposed weakening of federal environment laws and in defence of Australia's iconic wild places and wildlife. It saw open letters from prominent environmental lawyers and legal academics around the nation calling on Gillard not to eviscerate the cornerstone legislation designed to protect our environment, a flood of thousands of emails and letters in to the Prime Minister's office, direct lobbying of the companies pushing for the weakening of federal environment laws via the Business Council, public meetings around the country where people heard from activists and lawyers, and a convergence of community and environment groups in Canberra for the opening of COAG and the meeting of the Business Advisory Forum.

Powerful opposition to the moves came from logging-affected communities around Australia. No stranger to the impacts of bilateral arrangements that place state governments in charge of managing nationally significant ecosystems, these communities have witnessed first-hand the ongoing loss of forests to a rapacious logging industry, and the widespread decline in threatened species and biodiversity that accompanied the 20-year Regional Forest Agreements between the federal and state governments - Agreements that put the states in charge of managing forests and exempted logging operations from the EPBC Act.

What this experience demonstrated is that the states, with their short-sighted approach to environmental management, cannot be trusted with our irreplaceable wild places.

To understand the impetus behind these moves to weaken federal environment protection, one need look no further

than their inception. The brainchild of the Business Council of Australia (BCA) – a forum of Australia's top 100 corporations – this proposal to attack our federal environment laws was hatched to cut so-called 'green tape', and enable big business to obtain swift approvals for environmentally damaging developments, without getting 'bogged down' by state and Commonwealth approvals processes. The BCA meets just prior to COAG, and is the only group to have a direct line of communication with COAG via the Business Advisory Forum.

It is unsurprising that, given the choice, big business with an eye to environmentally damaging enterprise would prefer to deal with the states – witness WA Premier Colin Barnett's approval for a gas hub at Broome's Walmadan / James Price Point, Qld Premier Campbell Newman's sweeping support for the expansion of the coal industry in Queensland and the reopening of native forest logging, and the Victorian State Government's bid to let cattle back into Alpine National Parks. Without federal intervention the Franklin River would be dammed and the Great Barrier Reef would host a number of oil rigs. Federal oversight of environmental planning may not be fail-safe, but putting the states in charge would be an unmitigated disaster.

The State of the Environment Report 2011 paints a grim picture of the predicament facing Australia's environment and wildlife. More and more endangered species are moving closer to extinction, and we are losing our precious places. If approved, the devolution of EPBC Act powers to state governments would see our environment and wildlife under unprecedented threat from big business seeking access to many of our precious wild places.

If the 'one stop shop' environmental assessment and approvals process that both the BCA and Gillard claim they are aiming for is to be developed, it is only fitting that this be streamlined via the Commonwealth government, given its essential role in overseeing matters of national significance. To achieve this, federal and EPBC Act powers must be strengthened, not weakened for the convenience of big business or farmed out to the states via bilateral agreements, in order to enable adequate environmental protection and provide a rigorous and consistent system for environmental assessment that avoids the pitfalls of state mismanagement.

Roses Tier, north-east Tasmania





East Gippsland, Victoria

What happens now?

The next COAG meeting will be held this April. While the agenda is likely to be dominated by education, the overhanging matter of environmental approvals remains up in the air, and the campaign to keep our wild places out of state government hands builds again.

Having Gillard take the transfer of environmental powers off the table when COAG met last year is a fantastic interim win, and testament to a swift and clear campaign. Now the Prime Minister must take this proposal off the table for good, and publicly explain what is planned for the future of Australia's federal environment laws.

To stay in touch with the campaign, and receive updates about what's happening with our federal environment laws please visit

foe.org.au/nature-not-negotiable

find us at Nature: Not Negotiable on Facebook

follow us on Twitter @NatureNotNeg

Between now and the COAG meeting, please call or write to Prime Minister Gillard and let her know that you haven't forgotten about the plans to dramatically weaken federal environment protection powers, and that you'd like to know her plans for Commonwealth environment laws.

Online contact: www.pm.gov.au/contact-your-pm

Parliament Office:

PO Box 6022

House of Representatives

Parliament House, Canberra ACT 2600

Telephone: (02) 6277 7700

Fax: (02) 6273 4100

Lauren Caulfield is Friends of the Earth's 'Nature: Not Negotiable' campaign spokesperson.

WA uranium debate undermines 'green tape' propaganda

Jim Green

The tumultuous and complex relationship between WA and the rest of Australia has flared up over the Federal Government's involvement in environmental assessment through the Environmental Protection and Biodiversity Conservation (EPBC) Act. Some industry groups claim the assessment process involves duplication and is inefficient and that the Federal Government's powers under the EPBC Act should be curtailed.

The EPBC Act is a creature of the Howard Government. Howard could be accused of many things, but wrapping up industry in 'green tape' isn't one of them.

One of the environmental assessments at the centre of this quarrel is Toro Energy's proposal for WA's first uranium mine, at Wiluna in the Goldfields. The Wiluna proposal gained State environmental approval in October 2012. Federal Environment Minister Tony Burke has requested more information before he makes his decision. This includes information on water supply and mine closure rehabilitation plans.

Toro Energy was permitted by the State Government to submit a 'Swiss Cheese' application – full of holes. The company has not completed a credible environmental study into the water consumption for the life of the mine. It has no credible modelling for the long-term, safe storage of radioactive mine waste. It has not completed studies of a new and possibly endemic plant species despite a recommendation to complete those studies by the WA Department of Environment and Conservation.

And to list just one of a number of other data gaps, Toro Energy has failed to carry out studies on the interaction between the groundwater and surface water of the lake system where it intends to dump radioactive mine waste. Any further approval of this proposal without more information would be dangerously deficient.

The vital issue of safeguards and WMD proliferation risks associated with uranium exports doesn't get a look in at state or federal levels of assessment. That issue is supposedly handled by the Australian Safeguards and Non-proliferation Office (ASNO), a federal government agency with a track record of unprofessional, deceitful behaviour. For example, in 2008 ASNO told parliament's treaties committee that "strict" safeguards would "ensure" peaceful use of Australian uranium in Russia and failed to inform the committee that not a single safeguards inspection had taken place in Russia since 2001.

If we want an example of why it's important to get the detail right, we need look no further than Wiluna itself. Uranium exploration in the region 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. A radiation warning sign was found lying on the ground, face down, along with rusting barrels.

Nationally, the uranium industry has been plagued with leaks, spills, illegal dumping of waste, secrecy and accidents. A 2003 report into uranium mining by the Federal Senate References and Legislation Committee found "a pattern of under-performance and non-compliance" and concluded "that short-term considerations have been given greater weight than the potential for permanent damage to the environment".



Drums left to rust after uranium exploration at Wiluna in the 1980s.

In WA, a similar set of words around non-compliance were used to describe WA mining regulations in the 2011 Auditor General's report into 'Ensuring Compliance with Conditions on Mining'. The report states that there are "serious weaknesses in the monitoring of compliance with environmental conditions." The Auditor General concluded: "We cannot give assurance that agencies are adequately aware of non-compliance or if environmental conditions are delivering the desired outcomes."

That from the Auditor-General and still the WA Government not only accepts but approves a Swiss Cheese application from Toro Energy. Rather than attacking the federal government for seeking further information which is conspicuously absent in Toro Energy's 'Swiss Cheese' mine application, the WA Government should investigate and address problems with and limitations of the state's environmental assessment process.

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

Campaigning to stop the fourth coal terminal in Newcastle

Jane Oakley, Annika Dean and James Whelan

Health concerns over the proposal for a fourth coal terminal (T4) have united residents in Newcastle and the Hunter Valley. The community is fed up with the continued expansion of the coal industry and the lack of real investment in renewable energy. A coalition of 18 community groups is lobbying against the project.

Newcastle, already the world's largest coal port, currently exports around 115 million tonnes of coal each year, with a capacity for 210 million tonnes. T4 would allow Hunter coal exports to expand to 330 million tonnes each year. It would mean three times as many coal trains, three times as many coal mines and three times as much coal dust blowing into our suburbs. If T4 were built, coal exports from Newcastle would generate more greenhouse pollution than all of Australia's onshore emissions combined.

With an initial construction cost of \$1.2 billion, and estimates of the total project cost running to \$5 billion, investors will want the facility operating to capacity well into the future to make their investment profitable. Thus, T4 would reinforce the reliance of the State coffers on coal and reduce opportunities for a clean and healthy region with a diversified port.

T4 would also necessitate the construction of 15 more mega-mines in the Hunter Valley and Liverpool Plains with all the associated impacts these entail. Open-cut coal mining completely eliminates existing vegetation, destroys the genetic soil profile, displaces wildlife and habitat, degrades air quality, and alters existing land uses like farming. It permanently changes the topography of an area and leaves behind a scarred landscape with no scenic value and depleted soil. Mine tailings dumps produce highly acidic water, which can seep into waterways and aquifers. Collapsing tunnels cause subsidence of land surfaces and can have a devastating impact on landscapes, property values and rivers.

A recent survey of 580 households found that fewer than 10% of Newcastle residents support T4 and most are concerned about the health impacts of increased coal dust (<http://tiny.cc/plwetw>). Newcastle residents routinely wipe coal dust from surfaces inside and outside their homes. Dust levels already routinely exceed the national standard. More than 25,000 children attend schools within 500 metres of the train line and 32,000 people live in this coal corridor. For children and residents living nearby, T4 would mean 104 extra uncovered coal train movements every day, resulting in even higher levels of particle pollution, leading to increases in respiratory illnesses.

The health impacts of coal mining and transport in the Hunter and the dangers from cumulative exposure to coal dust are well documented. Improved workplace health and safety regulations have minimised workers' exposure to deadly coal dust. But those regulations provide no safety to communities surrounded by mines where coal dust continues to rain down. Add in those towns and families living near the transport corridors and the number of affected people grows exponentially.

Health problems

People living in coal-affected communities are more likely to suffer heart, lung and kidney cancer, respiratory and cardiovascular disease and birth defects. There is a direct link between long-term exposure to particle pollution and hospital admissions, emergency department attendance, asthma, respiratory and cardiovascular disease, congestive heart failure and premature death. The University of Sydney has released a study (posted at tiny.cc/viwetw) showing there are serious health impacts for communities living near coalmines and coal combustion power stations. A cancer cluster has recently been identified at the proposed site for the T4. Workers at Kooragang Island are nearly twice as likely to be diagnosed with cancer than the average person. Proceeding with the terminal will expose even more workers to a higher health risk.

The fine particles associated with coal mining, coal transport and the diesel emissions from coal trains are monitored throughout the Hunter Valley. During the past year, monitoring stations recorded 115 exceedances of the national standard for PM10 (particles of up to ten microns in diameter). To learn more, the Coal Terminal Action Group recently raised funds to conduct its own study of levels of particle pollution around the coal train line. They hired air pollution monitoring equipment and monitored air pollution at 12 households within 500m of the coal corridor during December. The data has been analysed by University of Newcastle scientists and will be available on the website of the Hunter Community Environment Centre after March 8.

Given the inherent dangers associated with the mining and burning of coal, it is disappointing to see continued investment in this archaic, polluting energy source with its risks to workers, local communities and the health of the planet. The Australian Renewable Energy Agency, set up as part of the Government's Clean Energy Future, receives \$3.2 billion per year – significantly less than the investment

in just this one coal based project. When you consider the funds that will be required to enable T4 to run at full capacity, suddenly \$3.2 billion looks like small change. A \$5 billion investment in renewable energy would be the moral course of action, one preferred by thousands of people concerned not only with climate change but with the true cost of the coal industry.

The Coal Terminal Action Group – a coalition of 18 community groups – has mounted a strong campaign against the terminal, which has already delayed the project considerably. In April 2012, nearly 500 submissions were lodged with the Department of Planning, over 95% of which were objecting to the proposal. In mid-2012, community members conducted a survey of 580 randomly selected households throughout coal-affected suburbs of Newcastle. Less than 10% of survey respondents stated that they wanted another coal terminal in Newcastle, including some survey respondents who work in the industry.

In June 2012, Port Waratah Coal Services announced a two-year delay in the planned construction time of the terminal. In December, PWCS halved the capacity of the initial phase of the project from 120 to 70 million tonnes p.a. The community campaign against T4 has now managed to both delay the project and shrink its initial size. However, whilst Port Waratah Coal Services have set back the anticipated start time for the project, they are still seeking immediate approval from the NSW and federal governments.



Photo from Hunter Community Environment Centre.

The campaign against T4 will be ramping up over the coming months. We invite you all to join our mailing list to stay updated on developments and to contribute to the campaign in whatever way you are able. Visit www.stopt4.org.au and let Barry O'Farrell know what you think about the construction of another coal terminal in Newcastle. Also, please check out our facebook page to stay updated on campaign developments: facebook.com/CoalTerminalActionGroup

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Australia's electricity market: making the polluters profitable

Ben Courtice

Markets are neither free nor efficient, and they are bad for the environment. Market choice is not cheap. While that may sound like a timeless left-wing credo, it's also a simple assessment of Australia's 20 years of privatisation and market-oriented restructure of electricity provision.

Outside small left-wing dissident circles (from Keynesians to Marxists), operating the power industry according to market principles has become an unquestioned and unspoken assumption. Reducing this industry's greenhouse emissions has also been seen as fundamentally a matter of market mechanisms, as we head into an Emissions Trading Scheme. But the history of the past two decades indicates that electricity industry privatisation and imposed market mechanisms have already been a key barrier to reducing emissions and restructuring the industry in a progressive manner.

A recent study commissioned by Environment Victoria shows that under the package of measures accompanying the carbon price, Australia's dirtiest power stations will be gifted with a windfall of between \$2.3 and \$5.4 billion.

This outcome appears perverse and corrupt. Yet the industry's representative body claims it is fair and just. As *The Age* reported in February 2013, "Chief executive of the Energy Supply Association of Australia, Matthew Warren, said carbon compensation was chiefly put in place to compensate for a reduction in the asset value of power stations as a result of the Emissions Trading Scheme."

If this precedent is followed, what will happen when climate action mandates the ending of coal mining? Coal companies, like mining companies worldwide, are counting the value of as yet unmined resources on their bottom line. Will the public purse be required to compensate coal barons for every dragline-bucket of coal that they do not mine and export?

The private owners of the power stations knew a carbon price scheme may be coming: it was in their contracts when they bought them. They have been warned and they have profited nicely in the meantime. They should not be compensated for a risk they were warned of. It is as perverse as it would be to compensate James Hardie for the loss of their asbestos business.

National Electricity Market

While Victoria and South Australia have the most privatised electricity industries, resisting complete privatisation in other states has not saved them from the logic of a private market. Following Victoria's lead, in the 1990s the eastern states and SA set up the National Electricity Market, modeled on now-failed electricity market systems in the UK and California.

The reasons given by governments for privatisation were to make power cheaper, in particular to attract and retain energy-intensive industries. But this is not what happened. In the one-sided 'power pool' system, energy generators make bids for how much energy they can provide and at what price. The cheapest bids have to be accepted first, but the price they receive is not what they bid, but is set by the highest bid that is accepted.

This system can push up the price paid to all generators in a given period to enormous sums. It caused excessive price rises and blackouts in the UK and California, where it was abandoned. In Australia, where it did not result in such immediate and obvious disasters, it has been retained.

One of the main environmental outcomes of the National Electricity Market power pool was that the cheapest power took a larger market share - its low bids are accepted first. The cheapest is also the dirtiest power - Victoria's enormous brown coal generators. These generators tended to displace baseload capacity from the slightly less polluting black coal generators in NSW and Queensland, with brown coal's share of generation growing from 23% to 31% in the 10 years from 1992.

As the brown coal dinosaurs became more profitable, their expected retirement date kept being pushed back. Victoria's notorious Hazelwood power plant, the most polluting of all, was scheduled for decommissioning in 2006, but was granted a 30-year extension by the state Labor government.

Following on from this, the Gillard government's Clean Energy Future carbon price package promised to pay the dirtiest coal generators to close down under their "contracts for closure" scheme - but the government abandoned it at the last minute. Instead, we now see these most polluting power stations being compensated while staying open.

Contracts to close Victoria's brown coal operators would have made NSW's underused black coal generators more profitable, and they are only marginally less polluting. It would not necessarily have caused renewable energy replacements to be built. Either way, the coal industry is a winner.

Renewable energy

While the market has favoured the dirtiest coal generators, renewable energy sources have required assistance from outside the electricity market to make any headway. The Renewable Energy Target has been organised by way of a market in Renewable Energy Certificates. It sets a clear target of renewable energy, requiring that set amounts

of RECs are bought by energy retailers (from renewable generators) to ensure that the target is met.

Yet the market was skewed by an influx of cheap, token RECs awarded to rooftop solar hot water systems during the Rudd government. The oversupply of these 'phantom RECs' crashed the REC price, and energy retailers bought up cheap RECs - largely stalling the wind farm construction industry that had been doing so well until then.

The stalling of the wind industry also means that many big energy companies are now finding themselves without significant renewable capacity. Origin and Energy Australia have argued for a reduction in the Renewable Energy Target, instead of building new wind farms. The Coalition parties appear to be bowing to this pressure and it remains to be seen whether Labor will follow suit.

The electricity market has seen declining demand since 2008. In a market that was expected to keep growing for the foreseeable future, this is bad news for the corporate players.

Industry going offshore may account for some of the drop in demand - and accordingly, China's energy use and emissions have been rising sharply since 2000. On the other hand, domestic energy efficiency measures and the proliferation of solar panels (PV) on homes is probably a large part of the picture. As PV prices have dropped, Australians have installed more than two gigawatts of solar PV generating capacity on their roofs - enough, at peak output, to replace one large coal generator.

Such demand reduction lowers wholesale prices. In peak energy use periods, reduced demand means the most expensive bids don't get used in the power pool, keeping the overall price down. SA's regulator has even called for lower retail prices as a result of this effect.

State governments have slashed support for PV by attacking feed-in tariff schemes that rewarded PV owners, but the falling cost of PV technology, and the rising cost of electricity, means PV will remain popular. This is good news - as far as it goes.

To compensate for their declining market share, and partly to pay for recent investment in "poles and wires", electricity companies are raising prices. For this reason, energy utility AGL has pressured the SA government to cancel the drop in retail prices that the regulator mandated. The investment by homeowners installing solar is not being allowed to benefit all consumers as it ought to.

As these and other examples illustrate, privatisation has given us an ongoing legacy of increased and extended use of our dirtiest power stations - and ensured they remain



immensely profitable to their owners. It has kept prices high and deterred investment in new clean energy sources. Free marketeers could point to ways the current electricity market may be improved to function more fairly. They may also point to the old state electricity bodies as inefficient bureaucracies. However, we don't have to defend the old bureaucracy to look beyond the existing electricity market system. There is scope for much more community ownership: in Germany, over half of wind farms (for example) are owned by citizens such as farmers and co-operatives, not by large utilities.

The power pool system is unsuited to renewable energy - wind and solar in particular. Falling electricity demand combined with growth in renewable electricity are causing the existing system to strain. Instead of persisting with our inflexible, inequitable, and polluter-rewarding market, we should start thinking of newer, more accountable mechanisms to replace the failing system.

Ben Courtice was the Renewable Energy campaigner at Friends of the Earth Melbourne in 2011-2012, and remains a volunteer activist at FoE.

The dirty business of coal in NSW

Beck Pearse

Coal is dirty business in New South Wales. Coal campaigners and locals residents whose homes are perched near or above the states' coal reserves know first-hand how difficult it is to resist the spread of coal and coal seam gas developments across rural and urban centres. They know how trifling community consultation processes can be, how difficult it is to resist compulsory access to or acquisition of property in the boundaries of mining developments. More generally, they understand the state government policy for the resource sector routinely privileges market expansion over social and environmental protection.

However even the most cynical participant in state energy and mining politics would be shocked at revelations from within the NSW state government. The Independent Commission Against Corruption (ICAC) is currently conducting an inquiry into the alleged conflicts of interest behind former minister Ian Macdonald's decision to open up the Bylong Valley for coal exploration in 2008, the same site where former minister Eddie Obeid and associates invested. The investigations have brought out incredible tales of the misuse of state power by a small group of sitting MPs and their associates. At the centre of this tale is a sub-faction of the ALP right wing led by Eddie Obeid.

Eddie Obeid and the Terrigals

Former Labor MP and right-wing power broker Eddie Obeid served in the NSW Upper House from 1991 to 2011 and served as Minister for Fisheries and Minister for Mineral Resources from 1999–2003. He lives in a \$10 million Hunters Hill mansion and drives a \$400,000 Mercedes. Through a network of trusts and family companies, Obeid and his relatives own a large number of properties in Sydney, the Bylong Valley, Terrigal, Port Woolwich, Hunters Hill, and Lebanon.

Obeid never gave a speech in Parliament, but enjoyed enormous influence as factional boss in the 'Terrigal Group',

a powerful right-wing sub-faction which exerted near total control over the Right and the NSW ALP. Their name comes from the beachfront house owned by Obeid where the group of MPs and union officials would routinely meet.

Nathan Rees when he resigned from his position as Premier of NSW famously said: "Should I not be Premier by the end of this day, let there be no doubt in the community's mind, no doubt, that any challenger will be a puppet of Eddie Obeid and Joe Tripodi." Rees had crossed the faction when he was granted consent from the NSW ALP National Conference to choose his own Cabinet. Rees had demoted Jo Tripodi and Ian Macdonald in late 2009. They organised a vote of no confidence against Rees in a caucus meeting, Kristina Kenneally was installed as Premier in December that year. This drama was a repeat of former premier Morris Iemma's disposal the year before.

Put simply, the power and influence of the Terrigal Group has been a defining feature of the NSW ALP for 10 years. Eddie, 'He Who Must be Obeid' and his faction have had an incredible amount of influence over the parliamentary party, including what positions are held by whom.

Coal connections

Obeid, his family and their associates stood to profit by up to \$100 million through investments made in the Bylong Valley, 100 kms west of Muswellbrook in the NSW Hunter Valley. In late 2007, Obeid's family company Locaway Pty Ltd, trustee for the Moona Plain Family Trust, bought the lavish Cherry Dale property for \$3.65 million in the Bylong Valley (\$1.02 million cash, \$2.63 million as a vendor loan). Most of the property was within the boundaries of what would become a new exploration lease called Mount Penny. The planned open cut mine at this site will produce 101 million tonnes of coal at a rate of five million tonnes per year over 21 years.



The Obeid family and their mates allegedly invested in the valley on the basis of inside knowledge provided by Ian Macdonald, then NSW minister for Primary Industry and Resources. The Cherry Brook property trebled in value after exploration tender opened. In September 2008 Ian Macdonald announced that the Bylong Valley would be opened up for coal exploration. An ICAC inquiry called "Operation Jasper" was set up to investigate the circumstances surrounding Macdonald's decision and whether confidential information was leaked to Obeid or his family members involved in the acquisition of millions of dollars in property and share options (the inquiry has widened to a series of other mining leases announced by Macdonald).

The ICAC hearing revealed that Obeid secured \$17 million for an option for the Cherry Brook property - a profit of \$13.35 million for the Obeid family from an outlay of \$1.02 million. Two additional properties nearby also bought by Obeid family interests were optioned for profits of \$900,000 and \$3.5 million. Further, the benefits from the coal tender it seems extend beyond these property sales.

A new company called Cascade Coal won the tender process and was awarded the exploration licence for Mount Penny in July 2009 for \$1 million. A group of wealthy businessmen self-titled the "Magnificent Seven" reinvented an events company in order to form Cascade Coal at the time the Obeid family and friends were buying property in the Bylong Valley. Cascade Coal is a private company set up by Brian Flannery and Travers Duncan, John McGuigan, John Atkinson, Richard Poole and John "Kingy" Kinghorn. A seventh investor was Macdonald's close friend and V8 Supercar promoter Greg Jones. Jones kept his investment in Cascade secret. So did the Obeids. An ICAC hearing revealed that the Obeid family had a secret 25% stake in Cascade Coal, part of which they later sold for \$60 million.

In another twist, the strategy was to then sell Cascade Coal to publicly-listed firm White Energy for \$500 million. This would have produced huge profits for the men involved. However the plan went awry when a Mitch Geddes, a White Energy investor and an independent director of the company Graham Cubbin asked the ASX to investigate the transaction. It turns out there is considerable overlap between the boards of White Energy and Cascade Coal.

Coincidences?

Counsel assisting Geoffrey Watson claims there are 39 'coincidences' that suggest Ian Macdonald assisted the Obeids and friends in securing profits from the coal development. For instance, confidential government maps of coal deposits in the Bylong area were found in offices of the Obeid family in Birkenhead during an ICAC raid in 2011. The Obeids claim no knowledge of how they got there. However, when Moses Obeid took the stand at the ICAC hearing in January this year it was revealed he was in contact with Macdonald about the status of the coal exploration licenses three months before the tender was announced in 2008.

In February a handwritten note by Greg Jones was presented at ICAC stating that \$35,000 was transferred to Macdonald in cash and gifts, as well as a loan for \$195,000 that was never repaid. He was also to receive \$4 million from the sale of Cascade Coal.

Obeid and Macdonald deny the allegations against them. Commissioner David Ipp will deliver his findings in July 2013 for the Bylong case and a second related inquiry into licences issued by Macdonald for Doyles Creek (also in the Hunter). Ipp's report will contain recommendations, potentially including charges. If so, court proceedings could go on for years.

Beck Pearse is a member of Friends of the Earth, Sydney.



Poowong says no to coal and gas

Chloe Aldenhoven

Its 11am, quiet and searing hot at the Poowong footy oval. But soon the cars start rolling in, and it feels like a stop-motion animation as the empty footy ground is suddenly filled with cars and their occupants rush to the shade of the clubhouses. A great racket rises over the hill, it sounds like the plane is early, but in fact it's a group of Harley-Davidson riders heading down to take part in the 50-metre human sign that is about to officially declare a Poowong Coal Mine and Gasfield Free Community.

Soon the call is made that the plane will be here, and the 450-strong crowd brace themselves for the heat and head over to the marked-out letters using their yellow triangle signs – the unmistakable calling-card of the 'Lock the Gate' movement – as sunshades. A cheer erupts as the little Cessna warplane flies over the crowd taking photos and video of the community spelling out 'WE R CSG FREE'.

It has only taken Poowong four months to get this far. After finding out about the coal and Coal Seam Gas (CSG) licenses that covered much of Poowong, a small group of community members approached their local landcare group. With their help, they then decided to hold an information night at the town hall to draw the community's attention to the encroaching exploration licenses, and the grave risk they were posing to the local community, rivers, ground water and the local dairy industry.

The CSG information evening attracted over a hundred people, farmers, business-owners, tree-changers and environmentalists, many of whom had heard of CSG and 'fracking' but had no idea of the immediate threat to Poowong and the rest of Gippsland.

Calling themselves 'CSG-Free Poowong', the newly formed group proceeded to survey every landholder in the Poowong area with the simple question: 'Do you want to declare Poowong Coal and Coal Seam Gas Free? Yes, no, or unsure?'

After three months of surveying, and after reaching over 550 of the 600 landholders at Poowong, the results were collated. An overwhelming 95% of Poowong agreed – they want to declare Poowong coalmine and gasfield free.

The Poowong declaration is a very special moment in the increasingly inspirational story of resistance to

unconventional gas in Australia. Drilling hasn't begun yet in Victoria, putting it in the privileged position of being able to stop the industry before it gets off the ground.

By being the first community in Victoria to make the declaration, the residents of Poowong have used a technique that has been spreading like wildfire across New South Wales, and is now set to do the same over Gippsland. The survey technique is much more than a petition. By declaring themselves 'Coal and Coal Seam Gas Free', communities are declaring that they intend to defend themselves against an industry that threatens to poison their water, air, land, animals and people.

This declaration has already been put in to effect all over the country, particularly now as communities in northern New South Wales have set up months-long blockades, refusing to allow mining company trucks, machinery and gas drills on to properties.

As well as fighting for the health of rural land and communities, Quit Coal also see the fight against unconventional gas in Gippsland as an essential part of the fight for a safe climate. Industry would like us to believe that gas is somehow cleaner and less greenhouse gas-intensive than coal. However, when you take in to account the vast amounts of methane that often seeps out of unconventional gas wells and the emissions created by the transport intense mining process, the greenhouse gas footprint could be the same, if not worse, than coal-fired power.

Quit Coal is now working to support communities in Mirboo North, Toora, Foster, Korumburra, Yarragon and the Sale region to march down the same path to declare their towns coal and CSG free. The Victorian arm of the increasingly effective and inspirational Australian anti-CSG movement has begun.

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Campbell Newman's uranium backflip in Queensland

Adam Stone

"I am happy to be quoted at the next election. If you do not support uranium mining, vote for the Greens. A vote for the Labor Party is a vote for a confused party that has no policy on this any more." Queensland Premier Campbell Newman, 31 October 2012.

I find myself in the unfamiliar position of being in agreement with Campbell Newman. Of the larger political parties, only the Greens still oppose the nuclear industry. We don't support uranium mining, nuclear power, or nuclear weapons.

The Labor Party opposed uranium mining in Queensland, but not so strongly that it was prepared to legislate a ban or put an end to the aspirations of prospective uranium miners by denying them exploration permits. The federal Labor Party abandoned its policy of banning new uranium mines at its 2007 national conference, then voted to export uranium to a non-party to the Nuclear Non-Proliferation Treaty (India) at its 2011 national conference, and by 2012 was actively lobbying Campbell Newman to permit uranium mining in Queensland.

However, Newman is being a bit cute when he paints himself as a proud uranium mining advocate, ready to submit to the will of the people. He had an opportunity to do that a year ago, but preferred the safety of the closet (claiming he had no plans to permit uranium mining) and a sure path to the Premier's office.

The claim that people who oppose uranium mining are 'against jobs' is equally suspect – who on earth is 'against jobs'?! Newman acknowledged on ABC radio in November 2012 that he has no modelling to substantiate his claims of "thousands of jobs and tens of billions of dollars of investment". Yet estimates of uranium industry employment across Australia range from 650 to 1760 jobs (depending on how many jobs at the multi-mineral Olympic Dam mine are attributed to uranium mining; and whether uranium exploration jobs are included).

Global demand for uranium is so soft that the Australian Uranium Association forecasts that no mines will be built in Queensland for another five to seven years. Mines will only be built after that time on the assumption that demand increases and the international uranium price escalates.

Then there's a separate question about whether more mining jobs would increase overall employment anyway. One area of the Queensland economy that is doing very well is mining. Indeed, we keep hearing cries of anguish about skill shortages and the need to import labour. Under these circumstances, new mining projects often simply shuffle jobs around from one project to another or out of less profitable industries such as manufacturing.

While the Premier's pro-uranium mining case rests on his fanciful jobs and investment claims, I would argue



that Queensland's participation in this industry is globally irresponsible for at least two reasons (and more, but these are the real clinchers for me).

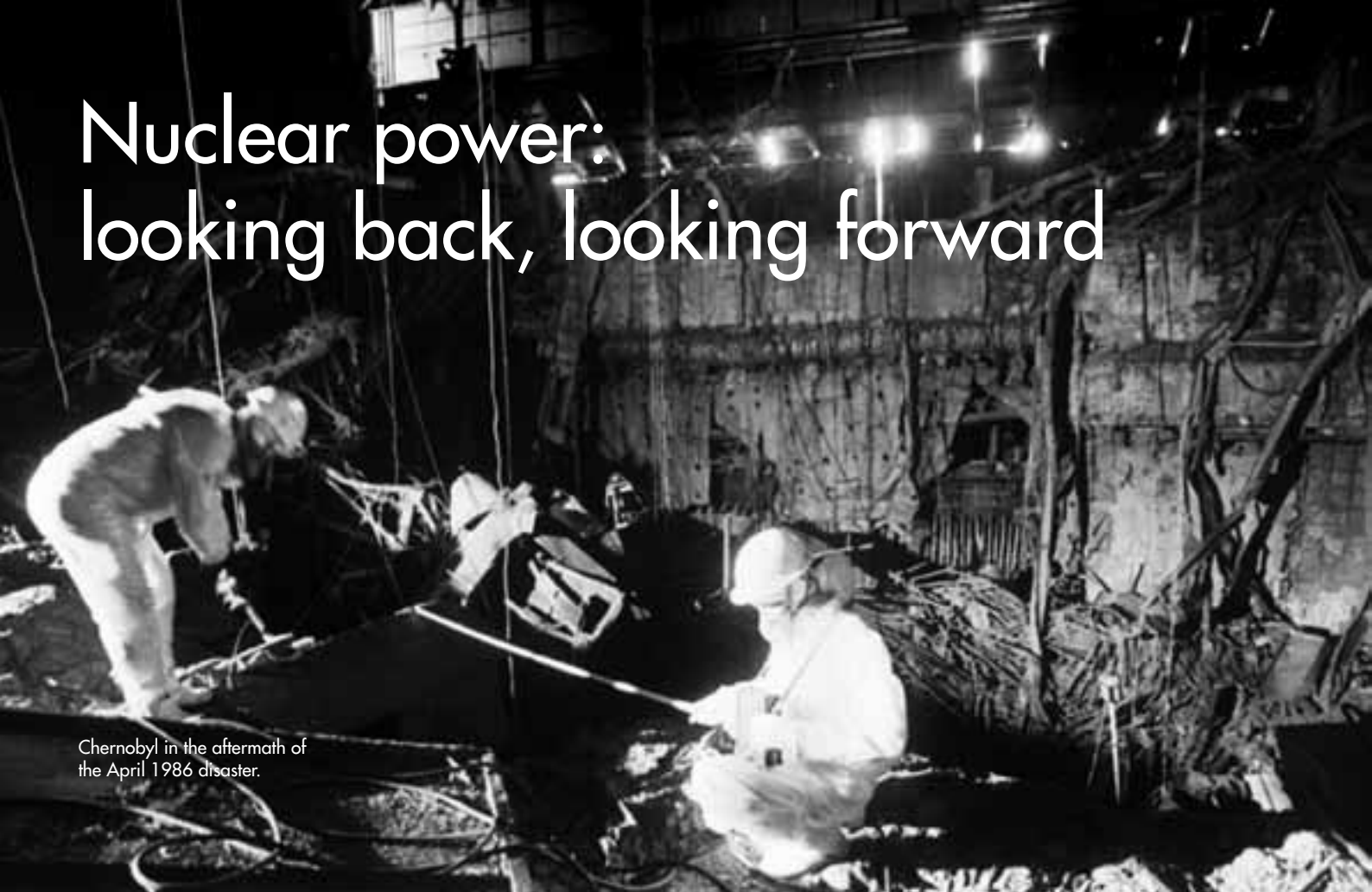
Firstly, it is impossible to break the link between civilian nuclear power and nuclear weapons. Even when operating inside the Nuclear Non-Proliferation Treaty, any country can follow North Korea's example, ditch their international commitments, and redirect the technology and materials they have acquired ostensibly for peaceful purposes into a weapons program. As former International Atomic Energy Agency Director-General Mohamed El Baradei said in 2005: "If a country with a full nuclear fuel cycle decides to break away from its non-proliferation commitments, a nuclear weapon could be only months away."

Secondly, there is still no long-term storage solution for high-level nuclear waste after some 60 years of the nuclear industry. We keep hearing that deep geological storage is the answer, but there is not one such facility operating anywhere in the world.

We might be willing to accept those risks if we were convinced that the world could not counter climate change without nuclear power, but that is simply not the case. Currently available renewable technologies are sufficient to meet our needs and many of them can do it more cheaply than nuclear power.

Adam Stone is the lead Senate candidate for the Queensland Greens.

Nuclear power: looking back, looking forward



Chernobyl in the aftermath of the April 1986 disaster.

Jim Green

Last year marked the 20th anniversary of the first edition of the World Nuclear Industry Status Report. For two decades the reports, produced by independent analysts in Europe, have punctured the lies of the nuclear industry.

The predictions made in the 1992 Status Report stack up well. After a 20-year period of significant growth, the report correctly predicted that nuclear expansion would "slow to a trickle". From 1992 to 2012, worldwide nuclear power capacity increased from 326 gigawatts (GW) to 374 GW – a 15% increase in 20 years.

The nuclear industry is finally catching up with the Status Reports. The International Atomic Energy Agency's (IAEA) 'low' estimates have become a more reliable guide over the years, and the Agency's current 'low' estimate of 456 GW capacity in 2030 suggests very slow annual growth of around 1.5%. In other words, there won't be a nuclear 'renaissance'.

Nuclear power's proportional contribution to world electricity production will certainly decline. Nuclear's contribution peaked at 17% in 1993, fell to 12.3% in 2011, and the IAEA estimates just 4.7–6.2% in 2030.

By 2030, a majority of the world's reactors will be nearing the end of their operating lives and the nuclear industry will need to run just to stand still. The ageing of the reactor fleet also has important safety consequences. Reactors are most accident-prone in their early years (break-in phase, e.g. Chernobyl, Three Mile Island) and in their old age (wear-out phase, e.g. Fukushima Daiichi). This is known as the 'bathtub effect' as the risk curve declines after the early years of operation then increases as old age sets in.

The 1992 Status Report notes the nuclear retreat in many countries in the aftermath of the Chernobyl disaster. Little

did the authors know that the 2012 report would document nuclear retreat in the aftermath of the only other Level 7 nuclear disaster, at Fukushima.

The 1992 Status Report is sadly prescient about safety standards in Japan. It states: "Japan's nuclear industry does not have an accident-free logbook, nor has it been frank with the public about its mishaps. Extensive damage to a key pumping system and to the reactor core at the Fukushima plant in January 1989 was hidden from the public for a month, leading to a storm of criticism."

The 1992 Status Report noted a major accident at Mihama-2 when a steam generator tube ruptured, leading to the first use in Japan of a reactor's emergency cooling system. In 2004, five workers were killed and six injured after a pipe rupture and steam leak at Mihama-3; it was later revealed that the failed pipe had not once been checked since the plant went into operation in 1976.

The 1992 Status Report mentions industry propaganda about the next generation of "passively safe" reactors. "None has advanced beyond the level of early engineering studies," the report states, and "several designs are competing, which means that no individual design is receiving sufficient support for the engineering to progress rapidly." Fast forward to 2009 and World Nuclear News noted that "progress is seen as slow, and several potential designs have been undergoing evaluation on paper for many years".

The 1992 Status Report notes that the French government was considering closing the Superphenix fast breeder reactor. The accident-prone reactor failed spectacularly to meet its promised performance levels and was permanently shut down in 1998. It reminds us that when nuclear boosters talk about a new generation of safe reactors, they're often

talking about an old generation of unsafe reactors.

The 1992 Status Report notes that opinion polls in most countries found majorities opposed to the construction of new reactors. No change there. A 2011 survey of nearly 19,000 people in 24 countries found that 31% of respondents supported construction of new reactors compared to 69% opposed. Only in Poland was there majority support (52:48).

A 2005 IAEA-commissioned survey of 18 countries found that only in South Korea was there majority support for new reactors. No more. South Korea's nuclear industry has been hit by a series of accidents and scandals including bribery, corruption and cover-ups, and the 2011 survey found that 68% of South Koreans oppose the construction of new reactors.

The 1992 Status Report quoted Forbes describing the nuclear industry as "the largest managerial disaster in US business history". Twenty years later, just-retired Exelon CEO John Rowe said new reactors "won't become economically viable for the foreseeable future" in the US while General Electric's CEO Jeffrey Immelt said it is "hard to justify nuclear, really hard." Siemens, once a giant in the nuclear construction business, is pulling out of the industry altogether.

The 1992 Status Report noted that the British government "lied to itself as well as the British public about the economics of the nuclear industry. Costs turned out to be about double what the government had claimed." Echoes of broken promises in recent years not to subsidise new reactors in the UK. *The Guardian* reported on February 18 that the UK government is now proposing to guarantee subsidies to nuclear utilities for up to 40 years.

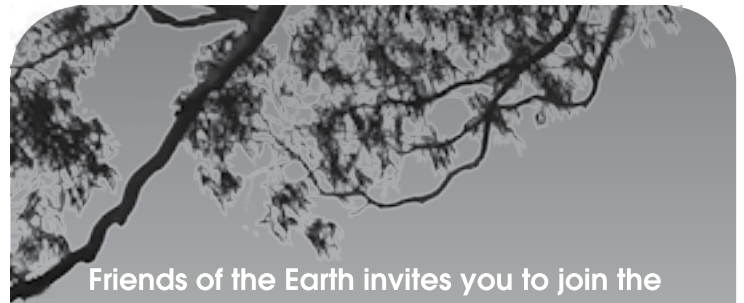
The 1992 Status Report noted that efforts to revive Iran's nuclear power program were thwarted by repeated bombings of the Bushehr reactor site by Iraqi aircraft. Echoes of ongoing concerns about Iran's nuclear program and the possibility of Israeli military strikes.

The 1992 Status Report noted that "not a single country has near-term plans to dispose of high-level waste." The same can be said today. The report said that plans for a high-level waste burial site in the U.S. by 1985 were moved back to 1989, then 1998, then 2003, then 2010. It accurately predicted that the 2010 timeframe for an operational repository at Yucca Mountain was unrealistic given the technical questions and vehement opposition. The Yucca Mountain plan was abandoned by the Obama administration in 2009, and plans for an interim store in Utah have also been abandoned. World Nuclear News reported in January that the U.S. is "at an historic low in its plans to manage used reactor fuel."

Anything at all in the 1992 Status Report that hasn't stood the test of time? Just one thing – the report crunches some numbers based on the assumption that the average lifespan for power reactors would be 25–30 years. That assumption was replaced by a 40-year assumption in later versions of the report. Even the 40-year assumption was looking a little shaky prior to Fukushima; less so now.

World Nuclear Industry Status Reports are posted at www.worldnuclearreport.org

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Spinning Fukushima

Jim Green

Nuclear apologists around the world are peddling the following dishonest arguments concerning the Fukushima nuclear disaster:

- it was caused by a natural disaster and no-one is to blame;
- it resulted from problems specific to Japan and is of no relevance to nuclear power elsewhere;
- it has not caused and will not cause any radiation-related deaths;
- low-level radiation exposure is harmless;
- the nuclear accident has caused a great deal of psychological suffering but that should be blamed on nuclear critics spreading 'radiophobia'; and
- lessons will be learned from the accident and nuclear power will be even safer than it already is.

Let's take each of those arguments in turn.

An Act of God?

Spin: "It was therefore a sequence of extraordinary forces unleashed by an unprecedented natural disaster which caused the accident at the reactors, not any operating failure, human error or design fault of the reactors themselves." – Uranium junior Toro Energy, 2011.

The 3/11 earthquake and tsunami were Acts of God but the nuclear disaster was an Act of TEPCO. The July 2012 report of Japan's Nuclear Accident Independent Investigation Commission (NAIIC) concluded that the accident was "a profoundly man-made disaster that could and should have been foreseen and prevented" if not for "a multitude of errors and wilful negligence that left the Fukushima plant unprepared for the events of March 11".

Made in Japan?

Spin: The fundamental causes of the Fukushima are to be found in the ingrained conventions of Japanese culture.

The otherwise excellent NAIIC report makes the questionable claim that the disaster can be attributed to problems specific to Japan. Kiyoshi Kurokawa, Chair of the Commission, said: "What must be admitted – very painfully – is that this was a disaster 'Made in Japan.' Its fundamental causes are to be found in the ingrained conventions of Japanese culture: our reflexive obedience; our reluctance to question authority; our devotion to 'sticking with the program'; our groupism; and our insularity."

Certainly those factors were at work – but they are not unique to Japan. Academic Benjamin Sovacool has documented 99 accidents at nuclear power plants worldwide from 1952 to 2009 that resulted in the loss of human life and/or more than US\$50,000 of property damage. Of those 99 accidents, 56 were in the USA, 10 in France, seven in both Japan and India, and the remaining 19 accidents in 11 other countries.

Chernobyl was dismissed as an aberration involving dated technology in a closed Communist society. Fukushima shows that nuclear disasters can happen in the most technologically advanced Western societies.

No radiation deaths?

Spin: "There have been no harmful effects from radiation on local people, nor any doses approaching harmful levels." – World Nuclear Association, January 2013.

The Fukushima Daiichi nuclear plant after the March 2011 disaster.



Long-term studies are unlikely to demonstrate statistically-significant increases in cancer incidence from Fukushima fallout, because of the high incidence of cancers in the general population. Nevertheless, some preliminary scientific estimates of the long-term cancer death toll are available, based on information about radiation releases and exposures. These range from a cancer death toll of 130 (a Stanford University study) to 3,000 (radiation biologist Ian Fairlie – ianfairlie.org).

Indirect deaths must also be considered, especially those resulting from the failure of TEPCO and government authorities to develop and implement adequate emergency response procedures. A September 2012 Editorial in Japan Times notes that 1,632 deaths occurred during or after evacuation from the triple-disaster; and 160,000 of the 343,000 evacuees were dislocated specifically because of the nuclear disaster. A January 2013 article in The Lancet notes that "the fact that 47% of disaster-related deaths were recognised in Fukushima prefecture alone indicates that the earthquake-triggered nuclear crisis at the Fukushima power plant caused extreme hardship for local residents."

Low-level radiation exposure is safe?

Spin: "If the most highly exposed person receives a trivial dose, then everyone's dose will be trivial and we can't expect anyone to get cancer." – US Health Physics Society

The Health Physics Society redefines the problem of low-level radiation exposure as a non-problem involving "trivial" doses which are, by definition, harmless. It would be too kind to describe that as circular logic – it is asinine.

The overwhelming weight of scientific opinion holds that there is no threshold below which ionising radiation is without risk. For example:

The 2006 report of the Committee on the Biological Effects of Ionising Radiation of the US National Academy of Sciences states: "The Committee judges that the balance of evidence from epidemiologic, animal and mechanistic studies tend to favor a simple proportionate relationship at low doses between radiation dose and cancer risk." It states that claims that low-level radiation exposure is beneficial are "unwarranted at this time".

A 2011 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."

And to give one other example (there are many), a 2003 study published in the Proceedings of the National Academy of Sciences states: "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."

Radiophobia?

Spin: 'Radiophobia' spread by nuclear critics is responsible for most of the suffering resulting from the nuclear accident.

The spin is disingenuous but we should acknowledge a thin thread of truth – claims that the Fukushima disaster will

lead to hundreds of thousands of deaths have no credibility and must be causing some distress in Japan.

However, vastly more suffering can be attributed to Japan's corrupt nuclear industry and its many accomplices. As the NAIIC report notes, the Fukushima disaster was the result of "collusion between the government, the regulators and TEPCO" and evacuees "continue to face grave concerns, including the health effects of radiation exposure, displacement, the dissolution of families, disruption of their lives and lifestyles and the contamination of vast areas of the environment."

Lessons learned?

Spin: Lessons will be learned from the Fukushima accident and improvements made. Nuclear power – already safe – will be safer still.

If the nuclear industry learned lessons from past mistakes, the Fukushima disaster wouldn't have happened in the first place. Too often, lessons are learned but then forgotten, or learned by some but not by those who really need to know, or learned too late, or learned but not acted upon. The Chernobyl accident certainly led to improvements but complacency set in as memories of the disaster faded, and the same can be expected in the aftermath of Fukushima.

A report by the IAEA and the OECD's Nuclear Energy Agency covering events from 2002-2005 states that "corrective measures, which are generally well-known, may not reach all end-users, or are not always rigorously or timely applied" and "operating experience feedback needs to be much improved in the international arena."

There is no clearer example of the industry's failure to learn than Japan's nuclear industry. Countless subsequent accidents, incidents and scandals would have been averted had the lessons of the fatal 1999 Tokaimura accident been properly learned and acted upon (and Tokaimura wouldn't have happened if earlier lessons about the need for adequate operator training had been acted upon). In 2002 and again in 2007, details of several hundreds safety breaches and data falsification incidents were revealed, stretching back to the 1980s. But nothing changed.

It has become increasingly obvious over the past decade that greater protection against seismic risks was necessary – especially in the aftermath of the July 2007 earthquake that caused radioactive water spills, burst pipes and fires at TEPCO's Kashiwazaki-Kariwa plant. But the nuclear utilities didn't want to spend money on upgrades and they weren't forced to act.

Nuclear apologists have learned the wrong lessons altogether. Dr William Sacks argues that an important lesson from Fukushima is the need to convince people that low-level radiation exposure is harmless. Rod Adams states: "The lesson that the world needs to take away from Fukushima is that it is okay to build hundreds or thousands of new nuclear power stations and to place them quite close to the backyards of millions of people."

Tell that to the family and friends of the Fukushima farmer whose suicide note read: "I wish there wasn't a nuclear plant."

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Deep Sea Mining

The Pacific Experiment



'Black Smoker'
– active hydrothermal vents emitting sulphide.

Helen Rosenbaum and Natalie Lowrey

Canadian mining company Nautilus Minerals Inc. has staked its reputation on bringing off the world's first deep sea mining (DSM) operation. The Bismarck Sea in Papua New Guinea has been marked out as the testing ground for this unprecedented technology. All eyes are on PNG: many other companies are waiting to see if Nautilus can successfully bring metals from sea floor to smelter before taking the plunge themselves.

The DSM campaign has been working with activists in PNG and the Pacific to develop an active, broad-based and informed civil society response in the Pacific region. The aims of the campaign are to achieve Free, Prior and Informed consent from affected communities and the application of the precautionary principle.

On the deep sea floor, along chains of volcanic mountains lie thousands of hydrothermal vent formations. These are like underwater hot springs, spouting black clouds of metal sulphides. The foci of DSM are the deposits laid down over thousands of years around the hydrothermal vents. The metal sulphide particles settling around the vents develop into huge mounds. These are known as Sea-floor Massive Sulphides. They can grow to millions of tonnes in mass. They are rich in zinc, copper, silver, gold, rare earths and other minerals.

Nautilus Minerals plans to extract gold and copper from the bottom of the Bismarck Sea in PNG's Exclusive Economic Zone. The Solwara 1 mine site is about 50 kms from Rabaul in East New Britain and 30 kms from the coast of New Ireland Province. Nautilus has secured or is in the

process of applying for exploration rights to 534,000 sq kms of the sea floor in PNG, Tonga, the Solomon Islands, Fiji and New Zealand.

Many other companies – from Japan, China, Korea, the UK, Canada, USA, Germany and the Russian Federation – are waiting to see how Nautilus fares before taking the plunge themselves. They have already taken out exploration licences covering over one million square kilometres of the Pacific sea floor.

Impacts

Very little is understood about the possible impacts of each individual deep sea mine let alone the cumulative impacts. Conditions around the hydrothermal vents are unlike anywhere else on the planet and this has resulted in unique ecosystems. At these depths the barometric pressure is very high, the mineral chemistry results in high acidity, and very hot water from the vents mixes with very cold sea water from the sea bottom. We are barely starting to understand deep sea ecosystems which occupy more than 90% of ocean space. ¹

Some scientists believe that hydrothermal vents are where life first started on earth. If so, these environments and these ecosystems could provide insights into the evolution of life. But this also means if deep sea mining goes ahead in the Pacific, many species could become extinct before they have even been identified.

DSM will result in direct and indirect impacts. Each mining operation would directly destroy thousands of amazing



Local communities in PNG are concerned that their tuna and fisheries industry will come under threat if Nautilus' Solwara 1 deep sea mining project goes ahead.

hydrothermal vent formations and their unique ecosystems. The destruction of vents alone would provide sufficient reason to not approve DSM projects. But there are many other risks such as the potential toxicity of metals that will be released into the ocean water.

"Our coastal and offshore island people depend on our marine resources for survival. It is our 'supermarket'. Any negative impact caused to the marine environment will have detrimental negative impact on our lives and the lives of our descendants. Destroy it and you destroyed us."

– Wences Magun, national coordinator for Mas Kagin Tapani in PNG and Deep Sea Mining campaign steering committee member.

DSM risks the possibility of upwelling and currents carrying mine-derived metals towards the coastline. The nature of the ocean is continuous, you cannot hope to touch one part and not effect the parts around it. Environmental impacts will not be isolated to the area being mined. They could spread far and wide with risks to match. For example, stocks of tuna and other migratory species are likely to be contaminated by heavy metals and the health of communities and ecosystems across the Pacific could be affected.

Studies and modelling are required to determine what metals will be released, what chemical forms they will be present in, the extent to which they will find their way into the food chain, how contaminated the seafood eaten by local communities will be, and what effects these metals will have on fisheries of local, national and regional importance.

This begs an important question: why isn't Nautilus trialling this new technology in its home country, Canada, or in another developed country that has strong environmental safeguards and an emergency response capacity? PNG and Pacific Island nations have none of these things.

The precautionary principle states that if a development has a risk of causing harm to the public or to the environment, the burden of proof that it is not harmful falls on the developers (i.e. mining companies and governments). In some legal systems, as in the European Union, the application of the precautionary principle is a statutory requirement. Yet the South Pacific Commission is fast-tracking the development of regulatory frameworks to enable DSM – before the risks have been properly studied and before communities throughout the Pacific have provided informed consent.

The Solwara 1 Environmental Impact Statement

The Environmental Impact Statement (EIS) was the key document considered by the PNG national government in granting the permits and operating licence to Nautilus. The EIS for the Solwara 1 Project was submitted to the PNG Department of Environment and Conservation in 2008. In 2009 the Department issued the final environmental permit for the development of the Solwara 1 project, followed by the granting of a 20-year mining lease in January 2011.

"The priority issues of intellectual Property Rights, the health of communities and the environment of communities in the Bismarck Seas and PNG's Exclusive Economic Zone are poorly dealt with. Hence the need for transparency about the decision making process behind the issuing of the 20 year license for Solwara 1 is imperative."

– Prof. Chalapan Kaluwin, Environmental Science & Geography Department, University of Papua New Guinea.

The purpose of an EIS is to provide clear and rigorous assessment of potential hazards and impacts. The Solwara 1 EIS should have provided the groundwork for comprehensive risk analysis and the development of risk management strategies. Both an independent review by Professor Richard Steiner² and the DSM campaign's first report, published in November 2011³, raised significant concerns about gaps in the Solwara 1 EIS.

Pacific women protesting against deep sea mining in the streets at the International Rio+20 Conference in Brazil.



In November 2012, the DSM campaign released a review⁴ of the sections of the EIS that describe the currents and the vertical water movements (upwelling) at the Solwara 1 site. The review focused on these oceanographic properties as they are vital for determining the level of risk that coastal communities and marine ecosystems will be exposed to.

The review found that the oceanographic aspects of the EIS suffer from a lack of rigour. There are many errors and omissions in the modeling, presentation and analysis of data. Instead of providing a solid basis for informed decision-making, the EIS attempts to blind its readers with junk science. It downplays the risks facing local communities and the marine environment. Only 30 kms away, New Ireland is especially at risk, with the possibility of upwelling and currents carrying mine-derived metals towards its coastline.

Community voices against deep sea mining

The call to stop experimental sea bed mining in the Pacific is growing. Local communities in Papua New Guinea and the Pacific are speaking out against this new frontier industry being imposed on their lives and livelihoods.

⁵This has included the presentation of a petition with over 24,000 signatures to the PNG government calling for Pacific governments to stop experimental seabed mining.⁶

Pacific women promoted the 'stop experimental seabed mining' message at the international Rio+20 conference in Brazil.⁷ While in New Zealand communities have come together to campaign against the mining of their black sands and their deep seas.⁸

In March 2013, the Pacific Conference of Churches 10th General Assembly held in Honiara, Solomon Islands, passed a resolution to stop deep sea mining in the Pacific.⁹

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Stay informed:

Join the Deep Sea Mining campaign e-list by sending an email to: natalie.lowrey@gmail.com

More information:

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youtube.com/StopDeepSeaMining

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Campaign for an Iraq War Inquiry

Sue Wareham

The largest anti-war demonstrations in Australian history took place 10 years ago. Millions of people protested worldwide, in about 800 cities – including in Australia, Britain, Italy, Spain, Germany, Switzerland, Ireland, the United States, Canada, South Africa, Syria, India, Russia, South Korea, Japan, and even McMurdo Station in Antarctica.

In Melbourne more than 100,000 people protested. They clogged Swanston Street for more than three hours, stretching all the way from the State Library down to Federation Square, demanding Australia not follow US president George Bush into war, and that we must allow UN weapons inspectors to do their work.

Even though globally millions marched, their collective will was ignored, and a tragedy of monstrous proportions unfolded in Iraq.

As predicted by many people at the time, the invasion of Iraq was a humanitarian, legal, political and strategic disaster. It left a trail of death and destruction and millions of refugees. It undermined the role of international law and strengthened terrorism. Australia's role in the war raised serious questions of government honesty and accountability. If we do not learn lessons from this episode, we are at risk of engaging in equally ill-founded wars in the future.

And now, 10 years later, we need to ask ourselves how the Australian government was able to ignore the public expression of outrage about its intentions. The key lesson we must learn is to ensure that Australian governments can never again commit our forces on the decision of a leader in the face of opposition from millions of Australian citizens, without even our Parliament being consulted. Democracy shouldn't work like that.

The 10th anniversary of the largest outpouring of anti-war protest this country has ever seen is a fitting occasion for an inquiry into the Iraq war.

The former secretary of the Department of Defence, Paul Barratt, along with former PM Malcolm Fraser, former chief of the Australian Defence Force General Peter Gration and many other distinguished Australians have recently formed

a Campaign for an Iraq War Inquiry to facilitate a national conversation about the big questions of how and why the Howard government committed Australian military personnel to invade Iraq in 2003. Their efforts are supported by Senior Australian of the Year, Professor Ian Maddocks.

Britain and the Netherlands have both conducted such inquiries, revealing much that was hidden in those countries' Iraq war decision-making. Of course, the government and opposition will resist, counting on the resignation many felt for the past decade to shield them from public pressure. But the demand for an inquiry into what happened 10 years ago can sow the seeds for a democratic capacity to ensure it never happens again.

Instead of simply looking back in horror at how Australia became embroiled in such an ill-conceived and catastrophic conflict, the inquiry would seek to identify the steps that led to Australia participating in the invasion of Iraq, in order to understand the lessons to be learnt and how to ensure we follow better procedures in the future.

The inclusion of our Parliament in any decision that puts our troops, and millions of civilians, in harm's way would be a good start. Going to war is one of the biggest steps any country can take, and yet John Howard has never been properly called to account for his decision in 2003. Those who, with him, thought it was the right decision at the time, should welcome and support an inquiry. As the war has been severely criticised, its proponents should have the opportunity to defend their actions and views.

In these days of political disengagement, an inquiry into Australia's involvement in Iraq would provide a powerful route to begin overcoming the sense of powerlessness so many people felt in the face of the travesty of democratic decision-making a decade ago. It is an episode from which we must learn, lest we repeat the mistakes.

Dr Sue Wareham is secretary of the Campaign for an Iraq War Inquiry.

More information and to sign the appeal calling for an inquiry: www.iraquwarinquiry.org.au



Indigenous communities, conservation and the resource boom

Nick McClean and Dawn Wells

In the recent Boyer Lectures, Prof. Marcia Langton argued that mining is providing Indigenous communities with an opportunity to move out of the economic margins and grow into a new middle class of wealth and opportunity. But is mining the only way forward for Indigenous communities seeking to develop economically sustainable futures? And are supporters of conservation committing an act of racism, as she suggests?

We can begin by looking to Prof. Langton's own publications. In an article published in the *Journal of Political Ecology* in 2005, Prof. Langton and her colleagues brought together research from across Australia, the Middle-East, Indonesia and the United Nation's chief conservation agency, the International Union for the Conservation of Nature. Assessing the benefits and pitfalls of developing community-based conservation programs in partnership with Indigenous peoples, the conclusions were clear – Australia is currently one of the few countries where Indigenous led conservation programs are proving successful.

To quote: "Australia has in relation to certain key national parks, taken a lead role in the development of joint management agreements with Indigenous groups" (p.35) and "we also argue, in contrast to many critiques of community-based conservation elsewhere, that community-oriented protected areas are delivering significant benefits to Indigenous peoples in Australia" (p.24).

Based on a number of detailed examples, Prof. Langton and her colleagues argued that Australia's Indigenous Protected Area (IPA) program in particular provides significant potential for Indigenous communities to develop livelihoods that are economically sustainable and culturally relevant. It's hard to argue with her either, when we consider that IPAs now make up 25% of the National Reserve System, and include the country's largest single conservation reserve, the massive Southern Tanami Indigenous Protected Area. This alone indicates that conservation is no longer solely the domain of city-based environmentalists, but is an increasingly important component of the Indigenous estate, and of Indigenous economic life.

Moreover, the IPA program is only one example of conservation done in partnership with Indigenous communities, with all states and territories except Tasmania and the ACT instituting legislation for the joint management of national parks. It is through these arrangements that Aboriginal ranger groups are being set up across the country, providing meaningful, ongoing employment for young Aboriginal men and women, and a forum within which elders can guide the management of their country according to cultural knowledge and community priorities.

While these schemes are in many cases still developing, Prof. Langton's argument in favour of IPAs revolves

around the fact that Indigenous land owners can maintain ownership and full control over their country and the programs developed to manage it. The secure tenure that underpins the IPA program is one of its biggest strengths, with communities nominating land they own outright as conservation reserves. Her point about the environment movement historically disregarding Indigenous interests is undeniable, but according to Prof. Langton's research, emerging forms of conservation are neither racist nor economically useless.

It can be argued that these programs exist in no small part due Indigenous advocates such as Prof. Langton and Noel Pearson mounting a public critique of the wilderness concept and mainstream environmentalism almost 20 years ago, a critique she foregrounds in the Boyer Lectures. Joint management schemes and the IPA program, as well as the many Indigenous engagement programs run by influential environmental NGOs today, exist not because of epiphanies among politicians and activists, but because of the well made arguments of Aboriginal people, acting as major rural landholders who in many cases seek out conservation as a viable option for managing their futures.

What is surprising about the Boyer Lectures is the lack of acknowledgement that these developments also represent a significant, if incomplete, process of cultural change among Australian conservationists, in direct response to Indigenous criticism and innovation. After all these programs, like Indigenous mining ventures, require collaboration and mutual endeavor to succeed.

What about mining itself? Is it the golden egg Prof. Langton would have us believe? A 2011 survey by the Australia Institute suggests a wide divergence between the mining industry's perceived and real economic benefits. Those surveyed thought the mining industry employed nine times more workers than it does; accounted for three times as much economic activity than it does; and was 30% more Australian-owned than it is. These findings represent an emerging field of research which is bringing the mining industry's self-styled image as the backbone of the Australian economy and sole provider of Aboriginal economic development under increasing scrutiny.

In regards to mining on Aboriginal land, there are two primary concerns. Firstly, are the economic benefits as good as they sound? And secondly, what power do Aboriginal communities have in the agreement-making process?

Prof. Langton's 2010 *Griffith Review* article 'The Resource Curse' raises many of these issues. She asks, "are there any policies to counter the growing disparities in income and living conditions and opportunities in the mining provinces?". She goes on to argue, "until this is resolved and other inequities addressed, there is a ticking time bomb in the remote economic heart of the nation"

Referring to the localised inflation which occurs in mining towns, Prof. Langton highlights where it hits remote Aboriginal communities hard – housing, goods and services. She refers to rental increases in which caravan parking births cost up to \$1000 per week. This high inflation has a flow-on effect on the services sector, as businesses are not able to provide housing for staff, and the community is deprived of basic services. Meanwhile, state and federal governments pull back on spending in these communities, and have a bad track record of providing sufficient public housing. The hardest hit are the people who are not directly employed by the mining industry. Not earning the higher wages provided by this industry, they are paying the same inflated rents, food and services costs. This is especially significant when we consider that the mining industry is one of the least labour intensive industries in the country. Finally, Prof. Langton draws attention to the fact that these towns become wholly reliant upon foreign-owned multinational corporations, which can decide at any moment to close mining operations if they are not profitable.

While Prof. Langton has convincingly argued for many years that Aboriginal communities are not receiving their fair share of mining revenues, in the Boyer Lectures her proposed solutions to this economic vulnerability are largely to maintain the power of the mining industry. While she discusses Indigenous disadvantage across the lectures, she doesn't discuss in detail the limited power Aboriginal communities frequently have in forming agreements with mining companies. It is common knowledge that Native Title, for example, provides for an uneven negotiating ground between resource companies and traditional owners, as it does not confer outright land ownership to traditional owners. Moreover many Aboriginal communities simply do not have any rights to land at all. This situation is the same as Prof. Langton herself found when looking at Aboriginal involvement in conservation. Those communities with more secure forms of tenure are able to negotiate good economic outcomes more often, while those without it are dependent on the ethics of those they do business with in order to safeguard their economic security.

Prof. Langton argues for Aboriginal communities' right to pursue mining projects, yet questions remain regarding their economic, social and environmental sustainability. In many cases mining companies remain as capable of disregarding Indigenous interests as conservationists, yet communities will no doubt continue to choose mining as a basis for their economic future. Nevertheless in many cases there appears to be no guarantee that it will provide an even or fair distribution of wealth, and in choosing mining many communities may well choose against conservation options with the potential to provide economic security over the long term. This is some of what we can glean from Marcia Langton's research.

Nick McClean works as a heritage consultant with Aboriginal ranger groups in NSW and is completing a PhD at the Australian National University. mclean.nick@gmail.com. Dawn Wells is commencing a PhD at Rutgers University, New Jersey. dv_wells@hotmail.com



Della Rae Morrison and Mia Pepper at an Australian Nuclear Free Alliance meeting.

Other responses to the Boyer Lectures

Thanks to Nick McClean and Dawn Wells for their insightful article. Prof. Langton's Boyer Lectures are posted at abc.net.au/radionational/programs/boyerlectures

A range of other responses to the Boyer Lectures are posted at foe.org.au/langton. These include a response from the co-chairs of the Australian Nuclear Free Alliance, Peter Watts, Mitch and Kado Muir, who conclude: "It is important that Aboriginal people have the opportunity to participate in economic development on their country but this must never be at the expense of custodial responsibilities or community wishes. Mining is inherently short term but the problems it brings to country last well beyond the life of any mine."

An article by Leah Talbot and Dave Sweeney rejects the claim that the environment movement is standing in the way of indigenous empowerment; notes the growing number of collaborations between indigenous Australians and conservationists; and states that "Langton's lack of rigour in assessing the heavy footprint of the mining sector is compounded by scant mention of the legal limitations of the native title regime, the often controversial and secretive nature of mining "agreements" and the fact that the cards are heavily stacked against Aboriginal people who are concerned about or would prefer to see no mining on their country."

Other responses posted at foe.org.au/langton include revelations of non-disclosure of mining company income, and a Friends of the Earth letter noting that Prof. Langton's comments about "dissident Aboriginal groups at Jabiluka" are incorrect.

– Chain Reactions eds.



Book Review

Nguly Gu Yadoo Mai (Our Good Food)

Eve Vincent and Breony Carbines

Nguly Gu Yadoo Mai (Our Good Food) showcases the bush foods knowledge held by Kokatha Mula people on the far west coast of South Australia. Authors Marcina Coleman Richards and Sue Coleman Haseldine explain, "We have made this book so that our bushtucker and our memories can live on."

The book is a collection of the authors' stories about finding, collecting, cooking and eating various plant foods, animals and seafoods from their country. In most cases the foods are local to the area; in some cases they were introduced with the onslaught of colonisation. The book includes the authors' reminiscences about collecting bush foods while growing up on the Koonibba mission, in order to supplement meagre rations. It highlights the importance of passing on cultural knowledge and the enthusiasm shown by younger family members. *Nguly Gu Yadoo Mai* documents a living, changing contemporary culture as well as highlighting changes in the landscape and current threats to the places where bushfoods are still found.

Vital in the continued availability of bushfoods are a series of parks and reserves north of Ceduna, which have escaped the large scale land-clearing so prevalent throughout South Australia's west coast. Along with many sites of cultural significance, this Mallee woodland are rich in bushfoods that emerge and change with the seasons. Many of the book's beautiful colour photographs were taken on trips into this vast area. This same region is also rich in minerals and of great interest to a mining industry actively exploring for heavy mineral sands, gold and uranium. Iluka's open cut mineral sands mine already operates on the area's western edge.

Furthermore, the SA government continues to ratchet down the conservation status of this precious, intact mallee ecosystem. If proposed amendments to the National Parks and Wildlife Act proceed, the Yellabinna Regional Reserve and the Pureba and Yumbarra Conservation Parks will be reclassified as Nature Reserves, otherwise known as the "mining category". The region currently comprises four million hectares of mallee bushland and is a haven for endangered, rare and threatened flora and fauna such as the Mallee Fowl, the Kultarr, the Hairy Footed Dunnart, the Scarlet Chested Parrot, the Pimpin Mallee, Sandlewood Tree and the Long-scaped Isotome. It is also home to the elusive Marsupial Mole.

On the one hand government departments recognise this area of large interconnected reserves as "critical for biodiversity conservation" which can "increase the resilience of species to the effects of climate change". There is also plenty of



government rhetoric about ensuring Aboriginal heritage is protected and engaging the community in management. But in reality the impacts of mineral exploration go largely unchecked, heritage sites are disregarded, the consequences of climate change are unknown and community engagement relies heavily on volunteers. The SA government continues to bow to the pressures of the mining industry and diminish the protection afforded to areas of high conservation and cultural significance.

By showcasing the bushfoods enjoyed by Kokatha Mula people, *Nguly Gu Yadoo Mai* provides a snapshot into an area that should be granted the highest level of protection. It is a message Kokatha Mula people have repeated in many forms over many years.

As the authors of *Nguly Gu Yadoo Mai* state: "We can't change the past but we can preserve what is left and hopefully preserve it forever".

Nguly Gu Yadoo Mai (Our good food)
is available for purchase:

\$20 (includes postage and handling)

\$36 gift pack with bush medicine ointment (includes postage and handling)

\$55 donation special includes signed copy of the book and bush medicine (includes postage and handling)

How to order:

Email your order to: wunylie@gmail.com

Please include your postal details.

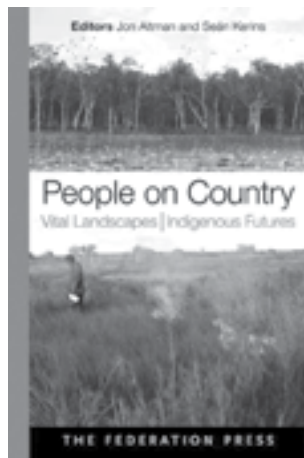
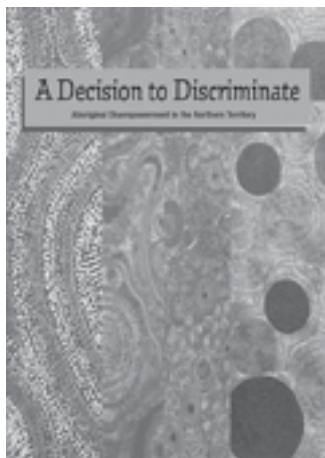
Deposit payment into:

Bank Account: West Mallee Protection

BSB: 105100 Account: 035185740

Or post cheques or money orders made out to West Mallee Protection to:

PO Box 25, Ceduna, SA 5690



People on Country – Vital Landscapes – Indigenous Futures

Editors Jon Altman and Seán Kerins

2012, 288 pages, \$39.95

ISBN 9781862878938

<http://www.federationpress.com.au>

A Decision to Discriminate

A Decision to Discriminate: Aboriginal Disempowerment in the Northern Territory

Edited by Michele Harris

Order from: www.concernedaustralians.com.au

\$15 + \$5 packaging and postage

email: info@concernedaustralians.com.au

ISBN: 978-0-646-58848-3

A Decision to Discriminate focuses on the Senate Committee Inquiry into the 'Stronger Futures' legislation (a.k.a. the Intervention). It shows how the Government decision-making process chose to ignore the views and ideas expressed by many Aboriginal people of the Northern Territory communities in much the same way as has happened since colonisation. The book uses quotes as a way of recording what the people have said and is a valuable resource for students of Aboriginal history and human rights law, particularly those with an interest in the continuing struggles of Aboriginal people.

The book documents:

- How the majority of those providing evidence to the Committee held similar, adverse views in regard to the Stronger Futures legislation.
- How Aboriginal people of the Northern Territory are being denied the right of taking responsibility for their communities.
- How the Senate Inquiry Committee failed to offer constructive alternatives for Government consideration through recommendations that genuinely reflected the views of the people.

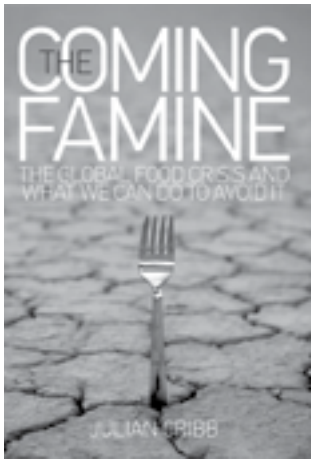
Speeches from launches of the book are posted at:
www.concernedaustralians.com.au

Over the past four decades Aboriginal people living in remote and regional Australia have been empowered by land rights and native title laws to claim back large tracts of their ancestral lands. Today the Indigenous estate covers over 20% of the continent and includes areas of globally significant biodiversity and cultural value, many now declared as Indigenous Protected Areas in the National Reserve System. But none of the Indigenous estate is in its pre-colonial condition and it faces a myriad of environmental threats.

People on Country – Vital Landscapes – Indigenous Futures draws on a diversity of perspectives to document a significant social and environmental movement that is quietly gathering momentum across this vast Indigenous estate. The essays, drawn from a collaboration between university researchers and Indigenous land owners, tells a little-known story about Aboriginal people who are living on, working on and caring for the lands and seas that they own and manage. The book seeks to reposition Indigenous people and their caring for country activities from the margins to the very core of the growing national conversation on issues such as climate change, biodiversity loss and resource depletion.

The book contains chapters on the following topics:

- People on country as alternate development
- Caring for Country to Working on Country
- Conducting two-way ecological research
- Indigenous rangers and the customary economy
- Country as classroom
- North to south?
- Dhimurru wind of change
- Ranger djäma? Manyamak!
- A long walk home to the warddewardde
- Countrymen standing together
- Commitment to our country
- No more yardin' us up like cattle
- Reconnecting with culture for future generations
- Indigenous futures on country
- The People on Country project
- Engaging the state



The Coming Famine

The Coming Famine

The Global Food Crisis and What We Can Do to Avoid It

Julian Cribb

ISBN: 9780643100404

\$29.95

CSIRO Publishing

publish.csiro.au/pid/6447.htm

Over the coming half-century the world's farmers will be asked to double global food production – using less water, less land, less energy, less fertiliser and less technology than they have today. In *The Coming Famine*, Julian Cribb describes how a dangerous confluence of scarcities – of water, good land, energy, nutrients, technology, fish and stable climates – are coming into play as the world's population grows and its demand for nutritious food grows even faster.

Cribb explains how the food system interacts with armed conflict, poverty, society, climate and the environment. He explains how regional shortages send shockwaves into the global community, with potential impacts on every nation and person on the planet as we approach the mid-century.

Cribb says: "This book is a wake-up call, intended for anyone who eats or plans to in future. The abundance of food in the past generation has created a false sense of security and we have taken our eye off what is possibly the most critical issue to the human future of all – certainly the most pressing: how we feed our vast population sustainably. While global food demand is set to double, just about everything needed to satisfy it is becoming much more scarce and costly. And while well-off consumers enjoy the cheapest food in history – they are throwing half of it away and paying farmers for it at rates that destroy large parts of global agriculture and its resource base."

Food Shock

Food Shock

The truth about what we put on our plates ... and what we can do to change it.

Dianne Loughnan

2012

RRP \$29.99

ISBN 978-1-921966-09-5

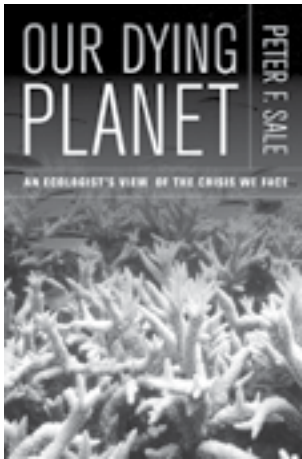
exislepublishing.com.au/Food_Shock.html

The vast majority of food in Australia is mass-produced in an industrialised system and the results are not as palatable as the everyday shopper might imagine. Our fruit and vegetables are sprayed with pesticides and herbicides, many of which have been banned overseas for years. Our beef is more often than not produced in feedlots, where thousands of cattle stand in their own faeces, regularly dosed with antibiotics to prevent the diseases that are an inevitable result of these conditions. Our chickens are 'spin chilled' in a dilute chlorine solution to help preserve them, and also to whiten the meat. The list goes on.

And if you combine all this with the as-yet-unknown effects of genetically modified crops, the growing water crisis, the continued sale of valuable farming land to foreign interests, and the constant struggle Australian farmers face to survive in a 'free-market' economy where 'big business' makes the profit and their overseas competitors are subsidised yet they are not, it soon becomes evident that food production in Australia faces a very uncertain future.

Food Shock investigates these issues and encourages us to ask some important questions: what are the alternatives to our current system? How do we get there? And what can we, the consumer, do to change things?

The book has chapters on pesticide and herbicide use; food processing and preservation; the use of hormones and antibiotics in meat production; factory farming; genetic modification; farmers' returns and supermarkets' profits; Australia's farming future; globalisation and food production; environmental impacts of food production; Australia's place in food-insecure world; and food sovereignty.



Our Dying Planet: An Ecologist's View

Our Dying Planet

An Ecologist's View of the Crisis We Face

Peter Sale

2012

RRP A\$49.95

University of California Press

Distributed in Australia by Inbooks inbooks.com.au

www.ucpress.edu/book.

php?isbn=9780520274600

http://www.petersalebooks.com

Coral reefs are on track to become the first ecosystem actually eliminated from the planet. So says leading ecologist Peter F. Sale in this crash course on the state of the planet. Sale draws from his own extensive work on coral reefs, and from recent research by other ecologists, to explore the many ways we are changing the earth and to explain why it matters. Weaving into the narrative his own first-hand field experiences around the world (half his career has been spent in Australia), Sale brings ecology alive while giving a solid understanding of the science at work behind today's pressing environmental issues.

He delves into topics including overfishing, deforestation, biodiversity loss, use of fossil fuels, population growth, and climate change while discussing the real consequences of our growing ecological footprint. Most important, Sales emphasises that a gloom-and-doom scenario is not inevitable, and he explores alternative paths. Some of his prescriptions – such as a one-child-per-family policy – are controversial.

Sales is also author of *The Ecology of Fishes on Coral Reefs*, *Coral Reef Fishes*, and *Marine Metapopulations*.



Green Australia: A Snapshot

Green Australia: A Snapshot

Steve Lancaster

2012

Wakefield Press

336 pages

ISBN 9781743050132

\$34.95

Extract: wakefieldpress.com.au/product.php?productid=917

Green Australia: A Snapshot examines the ways in which Australians are attempting to reduce their ecological footprint at home and at work.

In 2009, the CO2 Energy Emissions Index found that Australia had overtaken the USA to become the largest per capita emitter of greenhouse gases in the world – a legacy of dependence on coal-fired power stations, the widespread adoption of conventional farming techniques, heavy reliance on vehicles powered by fossil fuel, 'dirty' industrial practices and a growing mountain of waste. Yet, in recent years, there has been a growing awareness that climate change is beginning to bite, the recent drought and devastating floods suggesting that more extreme weather patterns are likely unless significant steps are taken to combat global warming.

Using case studies and up-to-date research, this book demonstrates that, although much more needs to be done if Australia is to secure a carbon-neutral future, some green shoots are beginning to emerge.

The book has chapters on energy production and consumption; green building techniques; green transport; food production and consumption; waste and recycling; clothing and furnishing; chemicals in the home; water conservation; the green workplace; and environmental activism.

Other books by Steve Lancaster, an Adelaide resident since 2006, include *British Politics in Focus*; *Britain and the World*; *The Modern World*; *The Era of the Second World War*; and *The Roman Empire*.

The Lace Makers of Narsapur

The Lace Makers of Narsapur

Maria Mies

1982 / 2012

\$32.95

ISBN: 9781742198149

Spinifex Press

spinifexpress.com.au/Bookstore/book/id=231

Maria Mies speaks about the book:
informyourself.com.au/Maria%20Mies.mp3

Spinifex Press has re-released Maria Mies' 1982 book, *The Lace Makers of Narsapur*, as part of its Feminist Classics series. *The Lace Makers* is a sensitive and groundbreaking study of women at the beginning of the process of globalisation. Mies looks at the way in which women are dispossessed by producing luxury goods for the Western market and simultaneously not counted as workers or producers in their fragmented workplaces. Instead they are defined as 'non-working housewives' and their work as 'leisure-time activity'. The rates of pay are far below acceptable levels resulting in accelerating pauperisation and a rapid deterioration in their position in Indian society. Before the latest 'economic boom' in India were a number of processes of dispossession – the dispossession of farmers through the 'green revolution' and alongside it, the dispossession of women, the lace makers of Narsapur in the state of Andhra Pradesh.

Honeycomb Kids:

*Honeycomb Kids:
Big Picture Parenting for a Changing World*

Anna M Campbell

2012

Cape Able Publishers

\$27.95

ISBN: 9780980747508

<http://honeycombkidsparentingbook.com>

Honeycomb Kids is a book about making the most of the day-to-day while preparing children for likely impacts on their world including global population growth, peak oil, competition for resources, increasing costs of living (food, electricity), health issues and plenty more. It's about raising contributors not just consumers.

Voices from the Global Fight for Women's Rights

*The Unfinished Revolution:
Voices from the Global Fight for Women's Rights*

Minky Worden (ed.)

2012

\$36.95

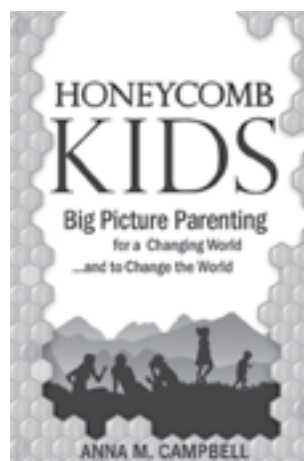
ISBN: 9781742198224

www.spinifexpress.com.au

The Unfinished Revolution tells the story of the global struggle to secure basic rights for women and girls, including in the Middle East where the Arab Spring raised high hopes, but the political revolutions are so far insufficient to guarantee progress. In many countries, women are second-class citizens by law. In others, religion and traditions block freedoms such as the right to work, study or access health care.

More than 30 writers – Nobel Prize laureates, leading activists, top policy makers, and former victims – have contributed to this anthology. Drawing from their rich personal experiences, they tackle some of the toughest questions and offer bold new approaches to problems affecting hundreds of millions of women.

As Media Director of Human Rights Watch, editor Minky Worden monitors crises, wars, human rights abuses, and political developments in more than seventy countries worldwide.



The book explores the various big picture scenarios today's children may face as adults, and offers more than 300 proactive suggestions as to how you can help children meet, rise above and contribute positively to the challenges coming their way.

"It's about empowering our kids, rather than just driving them around," writes author Anna Campbell.

Making Peace with the Earth

*Making Peace with the Earth:
Beyond Resource, Land and Food Wars*

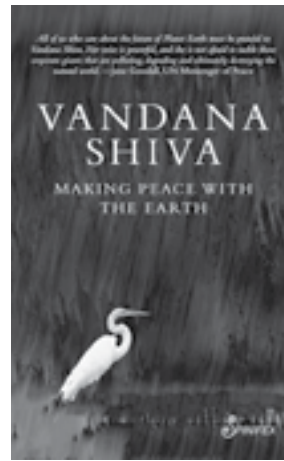
Vandana Shiva

2012

Spinifex Press

spinifexpress.com.au/Bookstore/book/id=237/
\$36.95

ISBN: 9781742198385



In her latest book, Sydney Peace Prize recipient Vandana Shiva finds that a series of wars have been declared against the Earth: wars about land, water, climate, forests and biodiversity. She examines the root causes of these wars against the backdrop of the current crisis in food supply. A radical scientist and ecofeminist, Shiva is not afraid to tackle corporate giants that are polluting, degrading and ultimately destroying the natural world. She imagines a world that could be sustainable; a world in which food security, justice and peace are all aligned.

The book has chapters on Eco-apartheid as War; The Great Land Grab; Water Wars and Water Peace; Climate Wars and Climate Peace; Forest Wars and Forest Peace; Synthetic Biology and Biodiversity Wars; Hunger by Design; Food Wars as Wars Against the Earth; Hunger via Corporate-Controlled Trade; Re-Designing the Food System for Sustainability, Food Justice and Food Peace; and Beyond Growth: Making Peace with the Earth.

Shiva begins *Making Peace with the Earth* with these words:

"When we think of wars in our times, our minds automatically turn to Iraq and Afghanistan, but the bigger war is the on-going war against the earth. In fact, the wars in Iraq, Afghanistan and Libya can be seen as wars for the earth's resources, especially oil. The war against the earth has its roots in an economy which fails to respect ecological and ethical limits - limits to inequality, to injustice, to greed and to economic concentration. Even though both economy and ecology have their roots in oikos, our home, the planet, the economy has separated itself from ecology in our minds, even as the intensity of exploitation and dependence on nature has increased."

"The global corporate economy based on the idea of limitless growth has become a permanent war economy against the planet and people. The means are instruments of war; coercive free trade treaties used to organise economies on the basis of trade wars; and technologies of production based on violence and control, such as toxins, genetic engineering, geo-engineering and nano-technologies."

Bio-Dynamics in the Backyard

Bio-Dynamics in the Backyard and Beyond: A Practical Guide for Gardeners and Others

Ute Mueller, 2012

Resource Publications

The book is available for \$15 from Ute Mueller, email utemueller@skymesh.com.au, ph (03) 6445 4286.

Review by Louise Sales

Ute is a passionate gardener and has managed a small bio-dynamic beef and lamb property in Northern Tasmania for the last 30 years. This book draws extensively from her experiences and will probably be most useful for people growing vegetables in cooler climates. The book provides a good introduction to bio-dynamic principles and contains a number of handy tips about mulching, companion planting and crop rotation. It also includes a helpful list of resources for people wanting to find out more.

The Introduction states: "This little book is aimed at a variety of individuals: those that want to grow the healthiest and most nutritious food for their families, those that have a passion for gardening and those that want to give something lasting to their soils and the environment... Even though the book is addressing gardeners, the bio-dynamic principles as laid out in an easy to understand way in Part One (Chapters one to four) are universal and can be applied to any situation from a few square metres to broad-acre farming. Part two of the book gives sound advice on the daily work in the garden, from crop rotation and green manure, mulch, companion planting, seed choices, seed saving and seed viability to well established veggie varieties and useful garden tools."

The climate movement in Australia

Climate Politics and the Climate Movement in Australia

Verity Burgmann and Hans Baer

2012

Melbourne University Press

\$49.99

ISBN: 9780522861334

Also available an e-book (downloadable PDF files) or a d-book (print-on-demand).

www.mup.com.au/page/168

Review by Cam Walker

Anyone who watches, or is involved in, the debate around climate change will know it is often a murky and messy landscape. There are lobbyists, companies both good and bad, green groups big and small, think tanks, sceptics, commentators and governments all in the mix.

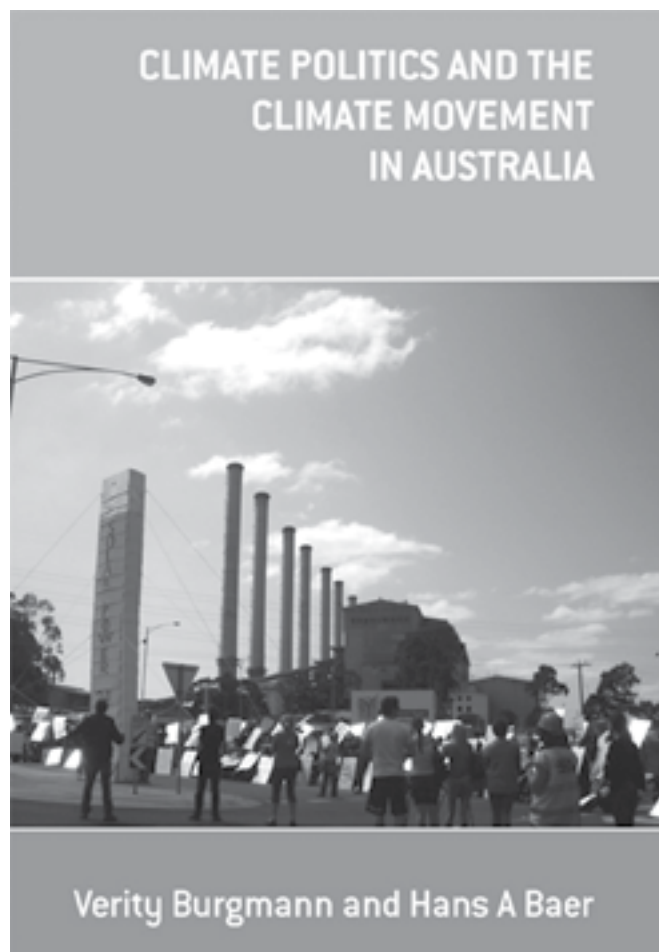
Even though I live and breathe climate change politics, I am often daunted by the sheer numbers of groups and people who are involved, and the complexities of how we all interact and where the points of leverage are. Action on climate change is one of those conflict points in the 'culture wars' within Australian society (with the sceptics and 'believers' lining up roughly along conservative and progressive lines), with the additional confusion that comes from having so many well resourced vested interests who represent industry influencing media and public debate.

So, when a book like *Climate Politics* comes along, anyone with an interest in climate politics should dive in, to get a good sense of how it all works.

Of course, any book will be, to a degree, a reflection of the authors politics and world view, and this is certainly the case with Verity Burgmann and Hans Baer, two left-wing academics from Melbourne University. It is Melbourne-heavy and tilted towards progressive views, but it provides a deeply impressive perspective on the movement and the issues at play.

Verity and Hans start with a quick run down of climate change and what science tells us is coming, and the fact that global and domestic political responses have been both too slow and of insufficient scale to deal with Nicholas Stern's 'wicked problem'.

They quickly dismiss the possibility



of a greener 'business as usual' delivering a solution, and focus in on the possibilities presented by the rising climate justice movement (CJM).

The CJM was certainly an obscure and marginal branch of the climate movement for a long time. I know this from the bitter experience of a decade's work trying to interest governments, aid groups and environmental NGOs about the plight of climate refugees – people who are displaced by global warming.

But with the failure of the international climate negotiations at Copenhagen in 2009, the movements from the global South (especially Africa, Latin America and the small island nations) burst onto the political stage, calling for stronger action than the voluntary accords which were on offer. More radical groups from the 'North' – and even those who were moderate but starting to give up hope for international action – found common cause with the grassroots activists from the South, and climate politics entered a new phase. 'Climate Justice' became a force to be reckoned with.

Here in Australia, there had been a brief moment of hope when the Howard government was dislodged from power, with new PM Kevin Rudd promising action. As this faded in the endless negotiations over what type of an emissions trading scheme (ETS) we would get, yet another wave of activism emerged, driven by the sheer desperation of the impending climate crisis that was bearing down on us. *Climate Code Red*, co-authored by Philip Sutton and David Spratt and initially published in 2008, helped launch this new sensibility. The need for action at emergency speed drove the creation of hundreds of new groups and the

creation of the climate emergency movement. The rise of the climate action groups, national climate summits, and direct action camps followed.

Bookending this emerging movement was a new wave of corporate lobbyists, the fact that the Greens got balance of power in the Senate and were able to drive the ALP further on climate action than would have otherwise happened, and new 'opinion formers' like the think tank Climate Institute Australia.

Hans and Verity do an admirable job of sketching out the various players in this landscape and, significantly, places each of them in the jigsaw of the larger picture. With a nice bit of historical context and blow-by-blow assessment of the glacial pace of action under the Rudd and Gillard governments, key actors are introduced: the Greens, the big environmental NGOs, academics, trade unions, and then the grassroots movement. They give voice to many in the grassroots who are often missing from history books while, as they admit, other voices are absent, largely through the limitations of space.

The newest emerging issues in climate politics are both throw backs to earlier decades and new models of organising. The struggle against the massive gas hub planned for north western WA brings together indigenous, biodiversity and climate concerns and bears strong similarities to the anti uranium struggles of the 1970s and '80s. The Lock the Gate (LtG) movement, which galvanises (in the words of LtG president Drew Hutton) 'Cockies, blockies and greenies' – graziers, rural poor and environmentalists – is arguably something new, building on a narrative of care for country, of values, of land, water and connection to place, and the right of communities to create their destiny instead of corporations. LtG is filling some of the political space taken by right-wing populists like Pauline Hanson, and is a fascinating development in community politics in Australia. Sadly both these movements get the barest look in *Climate Politics*.

Another strength of the book is its serious coverage of the absolute grassroots – including the sustained direct actions against the coal and CSG industries.

Apart from being a good bit of 'people's history', the final section of the book looks at approaches to change. The authors make it clear they are not fans of market-based mechanisms such as carbon trading and offsetting (and highlight the 'secondary injustices' that often flow from such schemes as we outsource our responsibility for climate action).

They sketch out some of the approaches to change that have been widely adopted. I sometimes find myself despondent when activists tell me that we don't have 'time for justice' when framing our response to climate change because of the urgency of the threat. There is certainly a politics of despair that underpins some sections

of the movement, and the charge that many of us are too 'sunny' in our messaging is something that must be considered carefully. But when key figures, such as writer George Monbiot, embrace nuclear power as a solution to decarbonising our energy systems, or corporates can see big profits in attempts to geo-engineer the atmosphere, our alarm bells must start ringing.

It is my firm belief that unless we place justice at the core of our response, the world we create through responding to climate change will not be worth living in. Yet current debate often doesn't really consider the deeper questions: can we have growth based economic systems and still respond to global warming at sufficient scale? Will pragmatic and incremental responses such as the carbon tax be able to be ramped up, or should they be abandoned in favour of more systemic and radical approaches?

At present, the greener 'business as usual' and the ecological modernisation approaches are dominant assumptions that act as the basis for much of the day-to-day activity within the climate movement. Critiques of growth models and conversations about the risk of over-reliance on technological adaptation rather than cultural and political transformation bubble away largely at the fringes of debate. The authors argue that 'globalising capitalism' as a solution will simply increase inequality and 'fry' the planet. I have to agree with them when they argue that we should not let the necessary technological transformation become the tail that wags the dog. They say that with climate chaos looming, political transformation is no longer optional – survival depends on renouncing the global status quo and creating an ecologically balanced way of life. They briefly posit the idea of democratic eco-socialism as a world view we should strive for.

Climate Politics is an insightful and thorough coverage of Australia's climate movement; more strength to its arm.

To read chapter synopses and to download chapter one for free, see mup.com.au/page/168. The chapters are as follows: The Politics of Survival, Climate Change in Australia; The Public and the Politicians; the Political Effects of the Greenhouse Effect 1980-2007; Carbon Pollution Reduction and Carbon Pricing; the Rudd and Gillard Governments; Corporations and the State; The Australian Greens; ENGOs and Think-Tanks; Academics; The Union Movement; Constructing the Climate Movement; The Hard Work of Climate Movement Organisation; Demos and Direct Action; and Towards a Safe Climate and Climate Justice

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A Global Forecast for the Next Forty Years

2052: A Global Forecast for the Next Forty Years

Jorgen Randers

2012

396pp, paperback

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Review by David Teather

Jorgen Randers seeks to answer a crucial question: Forty years hence, what will our world be like? He doesn't engage in wishful thinking. Instead he presents a readable, well-informed, comprehensive yet focused study of how the next four decades will unfold.

Randers identifies the main drivers of change, and those influences likely to impede a better outcome. His book empowers the reader not only to anticipate changes but also to act to alter the bigger picture. Randers appeals to his readers: "Please help to make my forecast wrong. Together we could create a much better world."

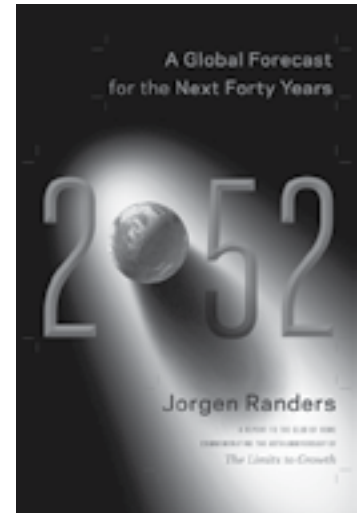
As a researcher at the Massachusetts Institute of Technology, Randers co-authored the 1972 study, *The Limits to Growth*. This concluded that, without big changes, humanity was poised to grow dangerously beyond the limits of our planet. He later became President of the BI Norwegian Business School, and Deputy Director International of the World Wildlife Fund.

Randers' forecast is based on actual and trend data on world population, workforce and production (GDP), and the proportions of production devoted to consumption and investment. Resource and climate problems are treated as a function of production, affecting the level of investment; labour productivity as a function of social tension, relating to growth in consumption and how consumption is distributed.

Randers expected to uncover a bleak, even catastrophic future, ending in environmental collapse before 2050. Instead his forecast reveals a much more diverse world by 2052, "some regions (particularly China) doing quite well, and others having failed miserably and fallen into anarchy, and all of them toiling in increasingly erratic weather ..."

Overall, increasing urbanisation will be accompanied by a dramatic decline in fertility, with the global population peaking at 8.1 billion in 2040. Global GDP will double by 2050. Productivity growth and consumption growth will slow, and an ever-greater proportion of GDP will be allocated to investment to solve problems caused by resource depletion, pollution, climate change, biodiversity loss and social/economic inequity. Because of increased investment, resource and climate problems will not become catastrophic before 2052, but there will be much unnecessary suffering from unabated climate damage.

People will seek opportunity, safety and strength in huge cities, so urban communities



will dominate. The culture of artificial, urban living will weaken efforts to protect nature. Biodiversity will suffer.

Randers believes that solving the major problems of poverty and climate change are well within human capability. Indeed, in a joint article in the *Journal of Social Responsibility* (June 2010), he and Paul Gilding demonstrated how the climate war can be won.

But in 2052 some three billion people will still live in poverty. And global temperature will have risen by about 2 degrees celsius, with the spectre of self-reinforcing climate change in prospect for the latter half of the century.

Why will it come to this? You need to read Randers' analysis in full, but briefly it will be because we have become conditioned to accept the cheapest solutions on offer. These are rarely the surest or best ways to solve serious, long-term problems.

Mainstream economists still take for granted the life-supporting services provided by our natural environment, and omit them from their models. They also prioritise the present by heavily discounting the future. In light of Randers' forecast, the assumption that life in the future will be better than today, and that it is therefore reasonable to postpone to the future those problems that appear difficult to solve now, is simply not tenable.

Both capitalism and democracy focus on the short term. Randers observes that the only high-profile leaders who have recently been able to force wise, long-term policy onto their peoples have been the European Union (in climate matters) and the Communist Party of China (in economic matters). "Both are further removed from democratic control than are most politicians."

In this review I have focused mainly on the material, quantitative aspects of Randers forecast, but he includes perceptive chapters on non-material aspects and "The Zeitgeist in 2052". He draws comparisons with other global forecasts, and provides five regional forecasts. Thirty short contributions by other specialists, on topics such as urban slums, cultural evolution, and solar energy, enlarge and diversify the text.

The book ends with 25 pages about personal decision making, on questions such as where best to live, what work to do, how to invest with peace of mind. There's thoughtful advice on focusing on satisfaction rather than income, and on developing interests that will stand the test of time.

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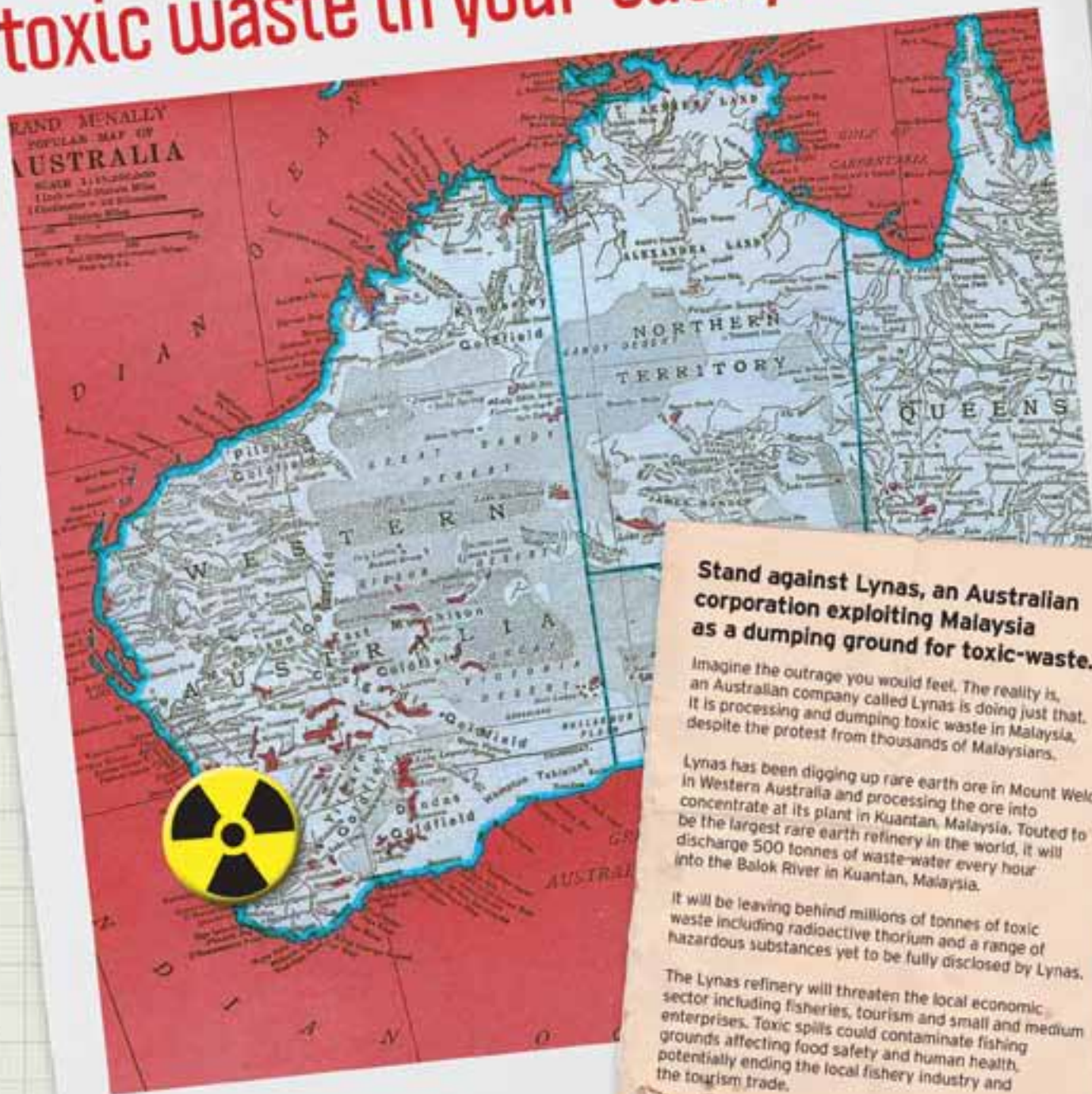
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CounterAct

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Would you like another country's toxic waste in your backyard?



Stand against Lynas, an Australian corporation exploiting Malaysia as a dumping ground for toxic-waste.

Imagine the outrage you would feel. The reality is, an Australian company called Lynas is doing just that. It is processing and dumping toxic waste in Malaysia, despite the protest from thousands of Malaysians.

Lynas has been digging up rare earth ore in Mount Weld in Western Australia and processing the ore into concentrate at its plant in Kuantan, Malaysia. Touted to be the largest rare earth refinery in the world, it will discharge 500 tonnes of waste-water every hour into the Balok River in Kuantan, Malaysia.

It will be leaving behind millions of tonnes of toxic waste including radioactive thorium and a range of hazardous substances yet to be fully disclosed by Lynas.

The Lynas refinery will threaten the local economic sector including fisheries, tourism and small and medium enterprises. Toxic spills could contaminate fishing grounds affecting food safety and human health, potentially ending the local fishery industry and the tourism trade.

Malaysians have grave concerns over the plant, which is understandable. Wouldn't you - if this happened in your backyard?

As an Australian, you can help Malaysians stop Lynas. To get involved, visit www.stopolynas.org

STOP  **LYNAS**