

Fukushima: A Call for Women's Leadership

Ariel Salleh

On 11 March 2011, the Fukushima nuclear electricity plant in Japan was hit by a powerful earthquake and tsunami. An undetermined land area remains uninhabitable; thousands of people are trying not to breathe, touch, eat or drink, the toxic levels of radiation in their environment. It is believed that BHP Billiton's Olympic Dam and Rio Tinto's Ranger mine exported uranium from Australia to this reactor. Now, confusion and anger, sickness, and disability, will mark many Japanese lives for years to come.¹

Over 80,000 people have been forced to abandon their homes. Thousands of people are now without a livelihood or the hope, in the near future, of rescuing one. Compensation claims are certain to be well over \$100 billion; rebuilding of infrastructure and housing will cost at least \$200 billion. Then there's the cost of clearing over 20 million tonnes of rubbish, some of it radioactive, and the cost of securing and decommissioning the stricken reactors over the coming decades. Add to this the relocation of people and factories and the settling of injury and health issues, and the cost of this disaster will be in the neighbourhood of \$450 billion, just a little under 10% of Japan's GDP. There are an estimated 1,000 corpses too radioactive to retrieve. Even when they are, who will cremate or bury them, and where?²

Fukushima was a civilian incident, but nuclear power and military weapons are joined in the global production system. After World War II, occupied Japan would enter an economic boom as chemical weapons were converted into pesticides for farms and nuclear know-how turned into power for cities.³

Who is served by denial?

I started thinking seriously about nuclear radiation

in 1976 after hearing a talk by the Australian pediatrician Dr Helen Caldicott. A mother myself, and worker in Aboriginal communities at the time, within days I was helping set up a Sydney branch of the Movement Against Uranium Mining and within months we had 100,000 people marching down George Street. For a while, the Australian Labor Party spoke with the people's voice, but its political will gave way eventually to the mining lobby. In the US, Caldicott's efforts at public education were also targetted through the energy cartel's media outlets. As she points out in a recent letter to the *New York Times*, the nuclear industry can only survive by misleading the public.⁴ Physicists talk of a 'permissible dose' of radiation, but biologists know there is no such thing. The fact is that radiation damage in the body takes time to reveal itself.

Nuclear denial takes place in private and public sectors. Installation accidents at Windscale in Cumberland, UK, 1957, and at Three Mile Island in Pennsylvania, US, 1979, were largely 'contained' by public relations expertise. Following the meltdown at Chernobyl, USSR, 1986, an embarrassed Soviet government failed to guide its citizens with health advice. Caldicott observes that today, both Belarus and the Ukraine have group homes full of deformed children. After the Chernobyl cloud crossed Turkey, leaders were so determined not to panic 'the people' that relevant information was censored. Doctors who helped mothers terminate pregnancies were jailed, and journalists who tried to report this, were jailed too.

In terms of cancer outcomes, Peter Karamoskos, a nuclear radiologist, and medical doctor Jim Green, offer the following assessment of Chernobyl.

The International Atomic Energy Agency estimates a total collective dose of 600,000 Sieverts over 50 years from Chernobyl fallout. A standard risk assessment from the International Commission on Radiological Protection is 0.05

fatal cancers per Sievert. Multiply those figures and we get an estimated 30,000 fatal cancers.

But they go on to add that:

In circumstances where people are exposed to low-level radiation, studies are unlikely to be able to demonstrate a statistically significant increase in cancer rates. This is because of the 'statistical noise' in the form of widespread cancer incidence from many causes, the longer latency period for some cancers, limited data on disease incidence, and various other data gaps and methodological difficulties.⁵

Formulae for calculating nuclear casualties vary, but the problem of denial is a constant.⁶ Since the Fukushima meltdown, Japanese citizens have become increasingly disturbed by an absence of transparency from both the Tokyo Electric Power Company (TEPCO) and government officials. And neither the World Health Organisation, nor International Atomic Energy Agency, has provided women with information about radiation exposure effects on their reproductive function.⁷ If anything, dis-information is order of the day. A *Wall Street Journal* article quotes Genichiro Wakabayashi from Kinki University's atomic-energy research institute, claiming that wearing masks or staying indoors during summer will harm children more than radiation will.⁸

So too, Japanese people have been encouraged to support their country by eating local produce. Yet as Roger Pulvers tells us:

No one knows how badly the sea around Fukushima has been contaminated, and we are only beginning to assess the effect that radiation has had on the land. Several hundred kilograms of tainted beef from Fukushima have been sold to markets as far away as Kagoshima on the southern island of Kyushu. This beef has registered up to 2,300 becquerels of radioactive caesium per kilo, more than five times the government-set safety limit. 648 head of cattle in Fukushima, Yamagata and Niigata Prefectures

have eaten contaminated straw. It has been shown that the feed itself contained up to 57,000 becquerels of radioactive material per kilogram.⁹

Oppression is economic and cultural

The self-interest of those who deny nuclear risk is both capitalist (economic) and patriarchal (cultural).¹⁰ Psychological denial protects a structural hierarchy of wealth, power, and bonding opportunities between men. But near the lower rungs of this narrow ladder of rewards stand youth, indigenous peoples, and housewives - the 'others' of neoliberalism and its hegemonic masculinity. These 'others' exist in direct contradiction to the military-industrial complex, and they each bring complementary insights and skills to its political transformation. However, my focus in this essay is on women, mothers, housewives, many of whom are also indigenous, giving double-strength to their political work. People whose labour sustains human bodies and links to natural habitat prioritise social reproduction over economic production. This observation gives rise to a distinct political analysis known as ecofeminism. It emerged fifty years ago, from thinkers and activists on every continent, and the nuclear question was central to it.¹¹

What is unique about women's resurgence in ecological struggle is how they combined it with their self-understanding as 'women'. Their focus on pollution was both inner and outer, personal and political. Women demeaned by men's objectification of their 'femininity' felt a need to purify and rebuild a self-identity on their own terms. Ecofeminists rejected what they saw as 3,000 thousand years of mal-development in the social construction of sex-gender relations. Their political activity went hand-in-hand with attention to psychological growth in mutually supportive consciousness-raising sessions. This revolutionary strategy is a profound existential commitment. And women would come to be disappointed to find so few environmentalist brothers entering into a parallel reflection on selfhood under the predatory model.

After a short review of the formative years of this radical resistance, I will touch on the rise of

'management' environmentalism and its cultivation of liberal feminists, before coming home again to the urgent situation in Japan.

The birth of ecological feminism

In the US, as far back as 1962, law suits against the corporate world were coming out of the kitchens of mothers and grandmothers - Mary Hays v Consolidated Edison, Rose Gaffney v Pacific Gas, Jeannie Honicker v Nuclear Regulatory Commission, Kay Drey v Dresden Nuclear Power Plant, Dolly Weinhold v Nuclear Regulatory Commission at Seabrook.¹² Japanese women were also foot soldiers in campaigns against local pollution. One, Ishimure Michiko founded the Citizens' Congress on Minamata Disease Countermeasures in 1968. Others set up the path-breaking producer-consumer cooperative known as the Seikatsu Club - which economic model would grow to some 200,000 or more members.¹³ Parisian writer Françoise d'Eaubonne's book, *Le féminisme ou la mort*, and US Democratic Socialist Rosemary Ruether's *New Woman: New Earth* gave early intellectual impetus to ecofeminism. A conjectural history of the self-deforming practices of western mastery was drawn. If the Greek word 'oikos' was etymological root of both ecology and economics - the latter had lost its way.

In 1974, the unquiet death occurred of whistleblower Karen Silkwood, a unionist at Kerr-McGee's Oklahoma plutonium processing factory. In 1975, women blockaded land clearing for construction of a nuclear reactor at Wyhl in Germany. More than economic loss of vineyards, they said, it was a matter of 'our human-being-in-nature'. By 1976, in Australia, women Friends of the Earth in Brisbane were conferencing on women and ecology, and some taking a co-ordinating role in the new Movement Against Uranium Mining. Even the mainstream women's magazines were printing pieces on women and the anti-nuclear issue. In 1977, a consciousness-raising group Women of All Red Nations (WARN) emerged among tribal Indians in South Dakota. They were especially worried about

weapons tests, aborted and deformed babies, leukaemia and involuntary sterilisation among their people.¹⁴

Women circulated articles on artificial needs and consumerism, animal exploitation for cosmetic manufacture, recycling, indigenous health, and of course, uranium.¹⁵ Separatist anti-nuclear groups were established in Australia - Women Against Nuclear Energy (WANE) in the eastern states, and a Feminist Anti Nuclear Group (FANG) in the west. Women's ecology collectives started up in Paris, Hamburg and Copenhagen, and ads for feminist organic farming communes appeared on every noticeboard. Susan Griffin's *Woman and Nature: the Roaring Inside Her* was published in 1978. Elizabeth Dodson Gray's *Green Paradise Lost* followed in 1979. Each author in her own way described the self-alienation of the andro-centric ego-construct; the obsession with control of 'other' peoples, the fascination with militarism, and its counterpart in instrumental logic and scientific calculation. Women wanted nothing less than a new language, reintegrating reason and passion.¹⁶

In the late 70s, the US League of Women Voters began lobbying for a moratorium on nuclear plant construction licences; the YWCA initiated an anti-nuclear education campaign; while the National Organisation of Women (NOW) instituted a National Day of Mourning for Silkwood. A further group - Dykes Opposed to Nuclear Technology (DONT), organised a New York conference on the energy crisis a patriarchally generated pseudo-problem, and a Women and Technology Conference was held in Montana the same year. Delphine Brox-Brochot of the Bremen Greens called for an end to high-tech aggrandisement while millions around the world still starve. Everywhere in the so called 'developed world', women's political lobbies and protests over effects on workers and children of pesticides and herbicides, of formaldehyde in furniture covers and insulation, of carcinogenic nitrate preservatives in foods, of lead glazes on china, were gaining momentum. But there was a weary road ahead - to quote Joyce Cheney:

I am annoyed that I feel forced to deal with the

mess the boys have made of the earth. It is a hard enough struggle to survive and to build and maintain a life-affirming culture...¹⁷

In 1980, a collective called Women Opposed to Nuclear Technology (WONT) organised a Women and Anti-Nuclear Conference in Nottingham, UK. Women in Solar Energy (WISE) began meeting in Amherst, Massachusetts, and Ynestra King mounted the first Women and Life on Earth Conference. By November 1981 a 2,000 strong body of women marched on the US capital, symbolically encircling the Pentagon. By now, Helen Caldicott, president of Physicians for Social Responsibility, had started a Women's Party for Survival in the US, with some 50 state and local chapters. This was subsequently broadened to become Americans for Nuclear Disarmament.¹⁸ In India, the *Manushi* collective published their influential piece 'Drought: God Sent or Man Made Disaster?'¹⁹

Historian of science Carolyn Merchant's classic *The Death of Nature: Women, Ecology and the Scientific Revolution* began to make itself felt in academic circles from this time on.²⁰ By the mid 80s, the following networks were operating in the US: Lesbians United in Non-Nuclear Action (LUNA) v Seabrook Reactor; Church Women United; Feminists to Save the Earth; Feminist Resources on Energy and Ecology; Dykes Opposed to Nuclear Technology (DONT) v Three Mile Island and Columbia's TRIGA Reactor; Women for Environmental Health demonstrating in Wall street; Mothers and Future Mothers Against Radiation v Pacific Gas and Electricity; Women Against Nuclear Development (WAND); Spinsters Opposed to Nuclear Genocide (SONG), and Dykes Against Nukes Concerned with Energy (DANCE) v United Technology. Women's environmental conferences were held at Somona and San Diego State universities.

In Japan, a kamakazi encampment of grandmothers known as the Shibokusa women were running continual guerilla disruptions on a military arsenal near Mt Fuji, while a further 2,500 women marched on Tokyo in the cause of world peace.²¹ By 1981, Women Opposed to Nuclear Technology had

grown into a string of non-violent direct action cells around the UK; many began what would become the perennial encirclement of Greenham Common missile base; and in Germany 3,000 women were demonstrating at Ramstein NATO base. In Australia, Margaret Morgan drew together a rural anti-nuclear organisation at Albury, and the *Sun Herald* newspaper was reporting on Labor Party and Democrat women's decisive inter-party policy stand against lifting bans on uranium-mining.

In 1983, a new collective, Women's Action Against Global Violence was encamped at Lucas Heights Atomic Energy Establishment near Sydney. This was followed by a protest in the desert with Aboriginal men and women outside the secret US reconnaissance station at Pine Gap. A first ecofeminist anthology, *Reclaim the Earth*, was brought out by Leonie Caldecott and Stephanie Leland.²² An Environment, Ethics and Ecology Conference in Canberra opened up debate between women ecofeminists and not so gender aware deep ecologists.²³ British elections saw a combined Women for Life on Earth & Ecology Party ticket; and a year later, ecofeminist Petra Kelly led Die Grunen into the Bundestag. Kelly's passionate biography, translated as *Fighting for Hope*, told how her anti-nuclear politics began as she watched her young sister die of leukaemia.²⁴

The soviet reactor accident at Chernobyl in 1986 alerted women to the lack of accountability in capitalism and socialism alike. Across Germany and Eastern Europe, a 'birth strike' expressed outrage, as governments from Turkey to France suppressed vital facts about environmental radiation levels for fear of damaging national economies. Sami people to the north of Scandinavia met official lies about post-Chernobyl radiation with a firm resolve for land rights. From the other side of the earth, Joan Wingfield of the Kokatha tribe flew from the Maralinga site of 1950s British bomb tests to address an International Atomic Energy Agency conference in Vienna. German sociologist Maria Mies published *Patriarchy and Accumulation on a World Scale*, the first substantial socialist ecofeminist statement.²⁵ A more New Age rejection of high-tech 'progress' was US bioregionalist Chellis

Glendinning's *Waking Up in the Nuclear Age*. In 1987, Darlene Keju Johnson from the Marshall Islands and Lorena Pedro from Belau, both Women Working for a Nuclear Free and Independent Pacific, went public about the jelly fish babies born to islander women and cancers in ocean communities following US atom tests.²⁶

The First International Ecofeminist Conference was held in 1987 on campus at the University of Southern California. North, south, east, and west, women's commitment to life on earth now spanned the nuclear threat, reproductive technologies, toxic chemicals, indigenous autonomy, genetic engineering, water conservation, and animal exploitation. Depleted uranium would become a focus with the Balkan and Middle East wars. Women's International League for Peace and Freedom (WILPF), Code Pink, Madre, and the World Women's March continue to pursue many of these concerns.²⁷ It is now two generations since ecofeminists came to politics, the movement continues to grow in experience, cross-cultural networks, and theoretical sophistication. Debates over gender literacy in environmental ethics or eco-socialist formulations have become standard fare for university courses, academic journals, and publishing houses. International initiatives by Vandana Shiva have even been recognised with an Alternative Nobel Prize.²⁸

The liberal backlash

Ecofeminism is at once an autonomist socialism, an ecology, a postcolonial movement, and a case for respecting women's initiatives in designing 'another world'. This said: ecofeminist work has been affected by changes in the political character of both feminism and environmentalism. Occasionally, one-dimensional thinkers unaware of the depth and complexity of women's eco-political renaissance, judged it to be little more than a public extension of the housewife role. Articles from liberal feminists used patronising and demeaning titles like 'Still Fooling with Mother Nature' and 'Calling Ecofeminism Back to Politics'.²⁹ But a glance at the now extensive literature of ecofeminism shows its

reach from epistemology to economics. My sense is that the establishment had become uneasy about this radicalism quite early on, because as women were writing their herstory, transnational corporations stepped up proactive measures - structural and ideological - for taking global control of the environmental agenda.

In the structural domain, the principle of neoliberal competitiveness would be legally embedded in international treaties and bureaucratic agencies like the UN. First the 1982 Brundtland Commission routinised a materially contradictory policy of growth with 'trickle down benefits' for sustainability. Then the 1992 Rio Earth Summit leveraged this up, setting the politics of Bio-Diversity and Climate Change Conventions in motion.³⁰ Soon the Kyoto Protocol and a rolling agenda of international COP meetings would have movement activists running to keep up with the newly institutionalised discourse of environmental management, and the public was carefully marginalised and disempowered by the academic complexities of 'risk analysis' and 'biosecurity'.

The globally orchestrated politics of liberal environmentalism enlisted UN, private foundation, and government sponsorship of special women's ecology organisations to 'mainstream' women's views in international policy. Women's 'citizenship' became the new liberal mantra. Women's Environment and Development Organization (WEDO) founded by the late US Congresswoman Bella Abzug in the early 90s, played a big role in this. Thus, at the UN Framework Convention on Climate Change COP13 in Bali, December 2007, Women in Europe for a Common Future are found hard pressed keeping nuclear power out the Clean Development Mechanism. The depth analysis of hegemonic masculinity gives way to ironing out its incoherencies.

Interminable international environmental meetings focus on women as 'victims' or objects of natural disaster and women who play the liberal feminist card to this policy are rewarded as 'professionals' for not rocking the androcentric boat to much. There is no place for an ecofeminist diagnosis of the cultural context of such 'crises'. Nor

is the knowledge of indigenous women from say Oceania, acceptable as an existing model of low carbon provisioning. Instead, the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (?) will draft women from the global South into 'capacity building' workshops for 'climate adaptation and mitigation'. While such neoliberal operations are ostensibly about 'justice and sustainability', the orientation is always framed by business as usual.

In the ideological domain, management environmentalism relies on several techniques for the pacification of citizens and governments. Public relations firms are employed to 'greenwash' or minimise local damage from capitalist industrial enterprises.³¹ Again, the packaging of ecology as a media commodity thins out the reporting of grassroots voices in favour of a few colourful and iconic feminist 'personalities'. A further silencing of ecofeminist politics has occurred as a result of public reliance on the internet as chief recorder of radical movements - since 90 per cent of web based material is selected and posted men - radical youth notwithstanding. A final ideological assault on women's ecological struggles has come through the universities. In the 90s, as Left analysis was overtaken by a new field of cultural studies, many women students took to the deconstructive study of political texts, an innocent but elitist move, leaving the concerns of threatened communities far behind.³²

The indigenous turn

While the institutions of eurocentric globalisation insured themselves against critique from within, peoples at the geographic periphery began celebrating the 500th year of Columbus. Then, at the 1992 Earth Summit in Rio de Janeiro, grassroots environmental politics would implode, taking a distinctly postcolonial turn. The articulation of this perspective by South American activists is very rich. In 2009, as anti-nuclear activists from the Arrernte, Tuareg nomads, and Acoma Pueblo, spoke truth to power in Washington, a First Continental Summit of Indigenous Women in

Peru produced a Manifesto in the cause of all life. The preamble to the document shows the women weaving together a seamless politics of sex, class, ethnicity, and species justice.

We are the carriers, conduits of our cultural and genetic make-up; we gestate and brood life; together with men, we are the axis of the family unit and society. We join our wombs to our mother earth's womb to give birth to new times in this Latin American continent where in many countries millions of people, impoverished by the neo-liberal system, raise their voices to say ENOUGH to oppression, exploitation and the looting of our wealth. We therefore join in the liberation struggles taking place throughout our continent.³³

In short, from the Mujeres Creando of La Paz: 'You cannot decolonize without de-patriarchalizing'.³⁴ In Bolivia, this deeply integrative indigenous politics opened into The Peoples Alternative Climate Summit at Cochabamba, April 2010, advancing a substantive economy based on the principle of 'living well', to replace the death risking formal economy of the mega-machine.³⁵ In 2011, the circle closes with Vandana Shiva and Maude Barlow seeking UN ratification of a Declaration of the Rights of Mother Earth:

affirming that to guarantee human rights it is necessary to recognize and defend the rights of Mother Earth and all beings in her and that there are existing cultures, practices and laws that do so ...³⁶

Putting life before profit

In the current crisis of global warming, the international nuclear industry presents itself as 'a clean, green, alternative' to fossil fuel based power generation. But not only is it a threat to all natural processes, the engineering of installation components and their daily operation draws massive amounts of electric power. Nevertheless, Japan's ruling class with US corporate partners

aims to put nuclear power back on track with more science and better 'technocratic management', even as Silvia Federici and George Caffentzis point out:

... the damaged nuclear reactors can hardly be blamed on the lack of capitalist development. On the contrary, they are the clearest evidence that high tech capitalism does not protect us against catastrophes, and it only intensifies their threat to human life while blocking any escape route.³⁷

It is not rational to pursue a fantasy of 'ecological modernisation' by means of this arsenal. The Fukushima meltdown may be a bonanza for reconstruction companies like Haliburton once they're done in Iraq, but the revolving door of men in suits know well that 'business is merely war by other means'.

Can the crisis of Fukushima become a political turning point? Japanese women and men have pioneered nuclear resistance. I think of the late Women and Life on Earth activist, Satomi Oba, president of Plutonium Action, Hiroshima.³⁸ And the perennial warnings of Kenji Higuchi, much sought after for the lecture circuit now.³⁹ Hisae Ogawa and others in the international ecofeminist peace organisation Code Pink are working all over Japan. Friends of the Earth is attending the special needs of women and children, demanding wider evacuation zones, and sackings in high places. Greenpeace is encouraging the public to mobilise, and in the months since March, mass demonstrations have rolled across Japan urging the end of nuclear power. Suddenly politicised, angry mothers and housewives have taken to the streets in their thousands.

This nuclear disaster has re-energised international opposition to the industry and here too, women's organisations are highly focused. The Asian Rural Women's Coalition meeting in Chennai has condemned plans for nuclear power plants in India, Burma, Thailand, Indonesia and the Philippines. The Gender_CC Network is contesting nuclear power through its regular climate change campaigning.⁴⁰ In the US, the National Organization of Women (NOW) and United Farm

Workers are looking into the possibility of bioaccumulation of radioactive cesium from Japan in California cows milk.⁴¹ In Australia, indigenous women continue fighting the government's proposed nuclear waste site on their land at Muckaty, Northern Territory.⁴²

The Asia Pacific Forum on Women, Law and Development, an NGO with consultative status to the UN, recently wrote to the Prime Minister of Japan, observing the unique vulnerability of women in post-disaster situations - as objects of violence, as part-time employed, and as those doing most of the country's care work. They noted only one woman among the 16 members of the Reconstruction Design Council. They referred the Prime Minister to Japan's obligations under the United Nation's Committee on the Elimination of Discrimination Against Women (CEDAW). They urged that gender disaggregated statistics be collected to prepare gender specific budgets. And the letter requests the Japanese government to exercise accountability by consulting with local women's organisations and promoting women's participation as planners and decision makers at prefecture, municipal, and town council levels.⁴³

How can a country call itself a democracy when it does not give women equal seats on its Reconstruction Design Council? Yet would the achievement of this liberal feminist objective actually turn Japan around? Like the affirmative action for women at big international environment meetings, it would simply paper over an unjust and unsustainable order. An ecofeminist politics is essential to expose and neutralise the deeply cultural androcentric interests that let Fukushima happen. A balanced committee is one thing, but it is even more essential to redefine its 'terms of reference' - putting life before profit. Workers responsible for the labour of social care think differently about 'value' and 'security' - this is why women must take leadership in Japan now.

¹ Jim Green, 'Fukushima: The Political Fallout in Australia', *Chain Reaction*, No. 112.

² Roger Pulvers, 'Japan after its Triple Disaster of 2011'.

The Science Show, ABC Radio National, 23 July 2011 (accessed 7 August 2011).

³ The military-industrial complex is the world's foremost environmental polluter. Michael Renner, 'Assessing the military's war on the environment' in L. Brown et al. (eds.), *State of the World Report*, New York: Norton, 1991.

⁴ Helen Caldicott, 'Unsafe at Any Dose', *New York Times*, 30 April 2011: <http://www.nytimes.com/2011/05/01/opinion/01caldicott.html> (accessed 11 August 2011).

⁵ Peter Karamoskos and Jim Green, 'Do We Know the Chernobyl Death Toll?', *Chain Reaction*, 2011, No. 112, 23.

⁶ The Australian firms, Toro Energy, Uranium One, and Heathgate Resources have sponsored lecture tours by scientists who dismiss public concerns about radiation. Peter Karamoskos, 'Radiating Risk and Undermining Public Health', Online Opinion, 13 December 2010: <http://www.onlineopinion.com.au/view.asp?article=11358> (accessed 13 August 2011).

⁷ Whitney Graham and Elena Nicklasson, 'Maternal Meltdown from Chernobyl to Fukushima', Global Movement for Children, San Francisco, 26 April 2011: (accessed 11 August 2011).

⁸ Mariko Sanchanta and Mitsuri Obe, 'Moms Turn Activists in Japanese Crisis', *Wall Street Journal*, 17 June 2011 (accessed 11 August 2011).

⁹ Pulvers, op. cit.

¹⁰ Chigaya Kinoshita, 'The Shock Doctrine of Japanese Type: Neoliberalism and the Shadow of America', 29 May 2011, <http://www.jfissures.org/>: (accessed 14 August 2011).

¹¹ The section that follows draws on Ariel Salleh, *Ecofeminism as Politics: nature, Marx, and the postmodern*, London/New York: Zed Books, 1997, chapter 2.

For sources on Japanese ecofeminism: Keitaro Morita, 'For a Better Environmental Communication: A Materialist Ecofeminist Analysis of Global Warming', Rikkyo University, Tokyo: www.eca.usp.br/caligrama/english/06_keitaro.pdf (accessed 11 August 2011).

¹² Dorothy Nelkin, 'Nuclear Power as a Feminist Issue', *Environment*, 1981, Vol. 23; Mary Goebel Noguchi, 'The Rise of the Housewife Activist', *Yomiuri Shimbun*, 1992, July/September.

¹³ Mike Danaher, 'On the Forest Fringes?: Environmentalism, Left Politics and Feminism in Japan', *Transformations*, 2003, No. 6. http://transformations.cqu.edu.au/journal/issue_06/pdf/danaher.pdf (accessed 6 August 2011).

¹⁴ Carolyn Merchant, 'Earthcare', *Environment*, 1981, Vol. 23.

¹⁵ Friends of the Earth, *Chain Reaction*, 1978, Vol. 3, No. 4.

¹⁶ Susan Griffin, *Woman and Nature: the Roaring Inside Her*, New York: Harper, 1978; Elizabeth Dodson Gray, *Green Paradise Lost*, Wellesley, MA: Roundtable Press, 1979.

¹⁷ Joyce Cheney, 'The Boys Got Us into This Mess', *Commonwoman*, 1979, quoted by Nelkin, op. cit. p.38.

¹⁸ Helen Caldicott, correspondence with the author, 1982.

¹⁹ Manushi collective, 'Dought: God Sent or Man Made Disaster?', *Manushi*, 1980, No.6.

²⁰ Carolyn Merchant, *The Death of Nature: Women, Ecology and the Scientific Revolution*, San Francisco: Harper, 1980.

²¹ Lynne Jones (ed.), *Keeping the Peace*, London, Women's Press, 1983; Alice Cook and Gwyn Kirk, *Greenham Women Everywhere*, London: Pluto, 1983.

²² Leonie Caldecott and Stephanie Leland (eds.), *Reclaim the Earth*, London: Women's Press, 1983.

²³ On the deep ecology debate see the journal *Environmental Ethics* 1984-94.

²⁴ Petra Kelly, *Fighting for Hope*, London: Chatto and Windus, 1984.

²⁵ Maria Mies, *Patriarchy and Accumulation on a World Scale*, London: Zed Books, 1986; Chellis Glendinning, *Waking Up in the Nuclear Age*, New York: Morrow, 1987.

²⁶ Women Working for a Nuclear Free and Independent Pacific (ed.), *Pacific Women Speak*, Oxford: Greenline, 1987.

²⁷ See WILPF and other feminist organisational websites for details.

²⁸ Vandana Shiva, *Staying Alive: Women, Ecology and Development*, London: Zed Books, 1989.

²⁹ Chris Cuomo, 'Still Fooling with Mother Nature', *Hypatia*, 2001, Vol. 16; Sherilyn MacGregor, 'From Care to Citizenship: Calling Ecofeminism back to Politics', *Ethics and the Environment*, 2004, Vol. 9.

³⁰ Stephan Schmidheiny (ed.), *Changing Course: A Global Business Perspective on Development and the Environment*, Cambridge, MA: MIT Press, 1992.

³¹ Jed Greer and Kenny Bruno, *Greenwash: The Reality Behind Corporate Environmentalism*, Penang: Third World Network, 1996.

³² For an overview, Ariel Salleh, 'Embodied Materialism in Action', *Polygraph: special issue on Ecology and Ideology*, 2010, No. 22: <www.duke.edu/web/polygraph/cfp.html> (accessed 7 August 2011).

³³ 'First Continental Summit of Indigenous Women', *Lucha Indigena*, Llapa Runaq Hatariynin, 34-Inti Raymi 2009. Translation by Marilyn Obeid, Sydney.

³⁴ Personal communication Silvia Federici, 15 February 2011.

³⁵ Ariel Salleh, 'Climate Strategy: Making the Choice between Ecological Modernisation or Living Well', *Journal of Australian Political Economy*, 2011, No. 66.

³⁶ Cormac Cullinan, 'The Universal Declaration of the Rights of Mother Earth' in Maude Barlow et al, *Does Nature Have Rights?* Ottawa: Council of Canadians, 2010.

³⁷ Silvia Federici and George Caffentzis, 'Must We Rebuild Their Anthill?': <http://jfissures.wordpress.com/2011/04/22/>: (accessed 6 August 2011).

³⁸ See the Women and Life on Earth website for an obituary of Satomi Oba: <http://www.wloe.org/Remembering-Satomi-Oba.513.0.html> (accessed 7 August 2011).

³⁹ Michael Chandler, 'In Japan, New Attention for Longtime Anti-Nuclear Activist', *Washington Post*, 11 April 2011 (accessed 7 August 2011).

⁴⁰ See www.Gender_CC.org; also Meike Spitzner, 'How Global Warming is Gendered' in A. Salleh (ed.), *Eco-Sufficiency & Global Justice: Women Write Political Ecology*, London/New York: Pluto Press, 2009.

⁴¹ NOW, Media Release: 'Spike in Infant Mortality in the Northwest Linked to Radiation Fallout from Fukushima Nuclear Power Plant Disaster', 16 June 2011: www.canow.org (accessed 13 August 2011).

⁴² For more information: www.beyondnuclearinitiative.com.

⁴³ Asia Pacific Forum on Women, Law and Development, Letter to Prime Minister Mr Naoto Kan, Prime Minister of Japan, 7 July 2011: www.apwld.org (accessed 8 July 2011).