

Climate Crisis? The Politics of Emergency Framing

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Groups opposing climate change have been springing up in many countries, constituting a climate change movement. Several writers and movement leaders argue that climate change is an emergency that requires urgent action by governments to bring the problem under control. However, framing climate change as an emergency has several potential disadvantages. It may implicitly prioritise climate change over other important social issues. It can orient the movement towards government-led solutions rather than build popular support for long-term efforts. Finally, emergency framing may be counterproductive: it can disempower citizens because the problem seems too big, whereas providing practical opportunities for action is a better long-term approach.

According to the Intergovernmental Panel on Climate Change, comprising the world's leading climate scientists, human-induced climate change presents a serious and growing danger to human societies (IPCC 2007). Inertia in the climate system means that much of the warming and associated impacts of past and current greenhouse gas emissions are yet to be experienced. James Hansen (2007), director of the NASA Goddard Institute for Space Studies, has argued that business-as-usual would bring about the collapse of major ice sheets with the sea level rising by several metres in this century alone. This would cause major inundation of heavily populated deltas – for example in Bangladesh – as well as major world cities. Additionally, rapid warming would lead to changing climate zones and a substantial increase in species extinction. Continued emissions and further warming could also trigger natural positive feedback mechanisms in the climate system with the potential to exaggerate and sustain the warming effect even after human greenhouse gas emissions are reduced. These feedbacks are likely to be disruptive and irreversible (Hansen 2007; Hansen et al 2007, 2008).

Recently, some scientists (Hansen et al 2008; Smith et al 2009) have argued that positive feedbacks may begin at lower levels of warming than previously anticipated and therefore the time period to cut greenhouse gas emissions effectively is reduced. Indeed, melting of the Arctic ice cap is already creating a positive feedback by reducing the earth's albedo. This, in turn, is beginning to melt the permafrost, with its own positive feedback of releasing previously frozen greenhouse gases.

Given that most global emissions arise from economic activity underpinned by long-lived capital investments in fossil fuel energy systems, delays in restructuring current global energy systems to low or zero-emissions technology could have profound consequences in the longer term. Yet, little structural change is apparent in governments and bureaucracies: for example, energy and industry departments are still approving new coal mines and coal-fired power stations in countries such as Australia, Britain, China and the US; the governments of several developed countries such as Canada appear unlikely to meet their Kyoto commitments (David Suzuki Foundation 2006); and global emissions are tracking above worst-case scenarios (Garnaut 2008).

Some climate campaigners argue that the lack of action on climate change means governments and the public do not fully understand the urgency of the situation. Many scientists and campaigners emphasise that addressing greenhouse gas emissions is urgent because dangerous levels of warming may become inevitable long before the effects are immediate, obvious and widespread enough to stimulate universal action. Framing climate change as an emergency is one way to draw attention to the

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dire nature of the problem. But are there disadvantages to the emergency approach? How effective is it in terms of actively engaging people in changing their behaviour over the long term and bringing sustained pressure to bear on governments to change their policies?

In the next section, we outline the debates about climate crisis, presenting some disadvantages of emergency framing. In the following section, we look at the early 1980s movement against nuclear war, drawing some lessons from that movement for current climate change campaigners. We conclude with a survey of key issues.

Climate Emergency and Its Problems

A growing number of people and organisations label climate change as an emergency. This includes UN Secretary General Ban Ki-Moon (ABC 2007), climate scientist James Hansen (2008: 11), and climate campaigners such as Al Gore (2007) and David Spratt and Philip Sutton (2008). Similar perspectives have been adopted by high-profile commentators Tim Flannery (2008), James Lovelock (2006) and George Monbiot (2006), and by politicians such as Tony Blair (in Hulme 2006).

This frame – this way of looking at the issue – is characterised by descriptions of climate change as catastrophic, chaotic, cataclysmic, out of control, explosive, irreversible, rapid and runaway. Climate advocates stress that “we are rapidly running out of time to act”. This language evokes fear about sudden and disastrous shifts in the climate system unless emergency action is taken.

Proponents of an emergency response argue that the speed of climate change is surpassing previous expectations. Scientists such as former Director General of the UK Met Office and former co-chair of the IPCC John Houghton (2008), as well as advocates such as Spratt and Sutton (2008), say that the science contained in the IPCC Fourth Assessment Report (2007) was incomplete and outdated by the time it was published. For example, since that report was finalised, the Arctic summer ice extent has diminished substantially; 2007 was by far the lowest ice extent on record, and 2008 was the lowest ice volume. Spratt and Sutton (2008) argue that Arctic sea-ice has reached a tipping point – a critical threshold for non-linear transition – while some climate scientists with specialist knowledge on the Arctic have predicted that summer sea ice will disappear before 2013 (Borenstein 2007). The emergency frame is invoked because the proximity of significant climate changes leaves very little time to effect major emissions reductions.

Nevertheless, there is scientific disagreement over whether empirical evidence exists for claims that Arctic ice melt has passed a tipping point. Vicki Pope, head of climate change advice at the Met Office Hadley Centre in the UK, states that the recent extreme melting could be due mainly to short-term natural weather variability in combination with the longer-term effects of climate change. She argues that exaggerated claims distort public perceptions and confuse public understanding and that this undermines attempts to communicate “the basic facts that the implications of climate change are profound and will be severe if greenhouse gas emissions are not cut drastically and swiftly over the coming

decades” (Pope 2009). The implication is that talk of imminent ice-melt is inaccurate and counterproductive.

A second area of contention relates to targets for a “safe” level of atmospheric carbon dioxide (CO₂). Advocates of an emergency response argue that current emissions targets – such as the European Union’s target of 450ppm CO₂-equivalent (450 parts per million of greenhouse gases in the atmosphere) and 2C of warming above pre-industrial levels as a threshold for dangerous climate change – are arbitrary and flawed. The IPCC (2007: 20) estimated that 450ppm provided only a 50% chance of restricting temperature rises to 2C. Given that current greenhouse gases concentrations are already 436ppm CO₂-equivalent (European Environment Agency 2009) and rising steadily, both the Stern Review (2006) and the Garnaut Review (2008) regarded a strong global agreement on a target of 450ppm as unlikely and saw 550ppm as more politically feasible. Yet, Hansen et al (2008) found climate sensitivity may be twice that estimated by the IPCC, and that, over the long term, 550ppm CO₂ would raise temperatures by 6C eventually leading to an ice-free planet and 70 metres of sea-level rise. Advocates argue that previously accepted targets such as 550ppm or even 450ppm are irresponsible and dangerous because they would lock in catastrophic levels of warming through positive feedbacks over the longer term, and, following Hansen et al (2008), say that we need rapidly to return to a safe climate zone of around 300ppm.

Differences in Conceptions of Response

Disagreements about imminent tipping points for sea-ice and safe levels of CO₂ have led to different conceptions about what is a sensible response to climate change. Spratt and Sutton (2008) argue that staged solutions to climate change – solutions that envisage a transition to a low or zero-carbon economy over a multi-decade time period using a range of measures – are no longer adequate because the Arctic sea ice has reached or even passed a tipping point. Activists argue that declaring a state of emergency is the only way to galvanise a rapid and widespread response capable of fully solving the problem in a very short time; staged solutions, while eminently workable, are simply too slow to be effective. Moreover, they argue that not only does business as usual have to change, but politics as usual must give way to an emergency response. Emergency advocates promote rapid and total transformation of global energy systems as a key part of any solution to climate change. For example, the Climate Action Summit (2009) in Australia endorsed a 100% renewable energy target by 2020, similar to the Repower America (2008) campaign for 100% “clean electricity” in a decade campaign launched by Al Gore, although the United States (US) “clean” target includes a large contribution from nuclear power.

Advocates draw on the military mobilisation by the US during the second world war as a useful example of an emergency response because it demonstrates the ability of society to change on a rapid and massive scale (Brown 2008; Monbiot 2006; Spratt and Sutton 2008). However, there are flaws in relying too heavily on the war scenario as an analogy.

Since war directly and immediately threatened the very survival of governments, they had a vested interest in leading an

emergency response. By contrast, climate change does not immediately threaten governments in the rich world and few of these governments appear to have any interest in leading an emergency response to climate change. (This might change if sea levels start rising significantly.)

Besides the example of the second world war, another emergency mobilisation metaphor used by climate change advocates is the Manhattan Project, the secret us scientific and engineering project to build the first atomic bombs. Yet another is the Apollo Program, the us government effort in the 1960s to send a man to the moon. Both of these involved government quests for power or prestige in a situation of international war or competition. Today, however, few governments are treating the challenge of climate change as a conflict or competition in which they seek to outperform rivals.

Focus on Immediate Crisis

To convey the sense of emergency, advocates have generally portrayed an imminent climate crisis with an emphasis on catastrophic impacts such as fires, floods, hurricanes, droughts and melting ice. A critic of the emergency frame, Mike Hulme (2006), former director of the Tyndall Centre for Climate Change in the United Kingdom (UK), claims that activists, the media, politicians and even scientists “are openly confusing the language of fear, terror and disaster with the observable physical reality of climate change”. One risk in relying on the language of fear to depict climate change is that advocates may exaggerate the dangers, providing sceptics with an easy opportunity to dismiss climate change as “alarmism”. Given that 41% of people in the us say that news of global warming is exaggerated, the alarmism tactic seems to be ineffective with a significant proportion of the us population (Nisbet 2009).

Another drawback to the catastrophe approach is the tendency of people to treat extreme weather events as natural. This leads to a perception that climate change is not caused by human activity and therefore the problem gets dismissed because it cannot be modified by human actions (Moser and Dilling 2004: 36). Evoking fear about climate change is a common tactic; as Nisbet (2009) points out, the film *An Inconvenient Truth* (2006) was promoted as “by far the most terrifying film you will ever see”. There is evidence that fear is a motivator in human behaviour, particularly if it resonates with personal experience or evolutionary fears (Weber 2006). However, because climate change is typically abstract and distant, it may require the evocation of dramatic and relevant consequences to elicit a more widespread personal response (Bennett 2008; Weber 2006).

Yet, even though fear may capture the attention of the audience, it often fails to generate active engagement with climate change or motivate changes in behaviour (Moser and Dilling 2004: 39). Indeed, fear often “triggers denial or repression of a problem perceived as overwhelming” (Moser and Dilling 2004: 39; see also Meijnders et al 2001; Nisbet 2009). Similar findings about fear as an inhibiting factor are documented in a review of public health campaigns around HIV and smoking: informing people about how they can take action is more likely to be consistently effective than arousing fears (Ruiter et al 2001).

Fear-inducing messages about catastrophe may be counter-productive in terms of inducing behavioural change. Moser and Dilling (2004: 44) suggest that positive and compelling images of a desired future may be more successful in generating change and moving societies towards a better future.

The climate debate is no longer just between climate scientists and sceptics, but encompasses disagreements among scientists and advocates over the imminence of catastrophe and responses to it. Using an emergency frame and dismissing staged solutions may polarise climate advocates into those for or against emergency action. The emergency frame could easily marginalise other approaches and undermine democratic norms in decision-making.

Prioritising Technological Change

Further, by shrinking the perceived response time available, the emergency frame can prioritise large-scale technological solutions over social and political change, with arguments that it is too late to save civilisation except by further human interference in the climate system such as geo-engineering (Cascio 2009; Lovelock and Rapley 2007; Thomas 2008). Geo-engineering assumes a human ability to control highly complex systems such as climate that are not fully understood, and risks compounding the problem while failing to address underlying issues.

Underlying issues may be obscured by framing climate change as the emergency to be solved. For example, many “solutions” to climate change such as those proposed by Stern (2006) and Garnaut (2008) build in assumptions about continued economic growth. However, the global economy is five times larger than it was 50 years ago (Jackson 2009), an increase paralleled by the overuse and degradation of planetary support mechanisms (Millennium Ecosystem Assessment 2005). Like carbon emissions, several ecosystem components have passed critical thresholds. But according to Tim Jackson (2009), if the global economy continues to grow at the same rate (if that were possible in the face of “peak oil”), it would be 80 times larger in 2100 than it was in 1960. This raises questions about economic, political, social and ethical systems, and how seemingly paramount problems such as climate change are framed. Although policies to tackle climate change need to begin within the confines of the current system, economic growth must be addressed because the current economic model is a crucial causal factor underlying other apparently more urgent issues.

Finally, the focus on climate change as an emergency may render the movement unsustainable. If global warming progresses less quickly than anticipated, climate change may be dismissed as “alarmism”. But if climate change does occur quickly and the movement does not succeed in achieving rapid transition, the movement risks losing its momentum and its reason for existence despite the fact that climate change and many other challenges will be an enduring reality. In addition to immediate campaigns focused around stopping new coal mines and coal-fired power stations, the social movement also needs to be preparing for a series of long-term campaigns such as building community resilience around the relocation of food and energy resources, and making the transition away from polluting industries.

To get a broader perspective on the question of emergency framing, we turn to movements against nuclear war. Analysing past movements has the advantage of showing whether a crisis mentality brings results.

Nuclear Emergency and its Problems

In the early 1980s, a massive protest movement against nuclear war developed in western Europe and the us (Wittner 1993-2003). For many in this movement, stopping nuclear war was an emergency. But was framing the issue as paramount and urgent the best way to deal with the problem?

After nuclear bombs were dropped on Hiroshima and Nagasaki on 6 and 9 August 1945, the governments of the us and the Soviet Union rushed to develop massive nuclear arsenals. Many other governments also began to consider obtaining nuclear weapons, and by 1964 the governments of Britain, France and China had exploded them.

Opposition to nuclear arms emerged from the very beginning, including among scientists. A major popular mobilisation occurred in the late 1950s, in which the primary focus was on fallout from nuclear tests being carried out by major powers. This movement led to the partial test ban treaty in 1963, but popular concern faded after that.

At the end of the 1970s, popular opposition grew rapidly. It was especially strong in western Europe, the us and a few other countries. Japan, in the aftermath of Hiroshima and Nagasaki, had long had a strong peace movement.

Early 1980s Scenario

In these countries in the early 1980s, nuclear war was by far the most prominent issue in terms of social movement mobilisation and media attention. For many, nuclear war was a matter of life and death: it was a make-or-break issue for humanity.

During 1980, Helen Caldicott, a prominent anti-nuclear campaigner, told audiences “We have six months to save the world.” The us election was to be held in November that year, and she believed that nuclear war was on the cards if Ronald Reagan was elected, so “saving the world” meant stopping Reagan from being elected. Caldicott successfully used scare tactics over many years to attract many people into the movement, but her style and exaggerations alienated others.

Many people believed at the time that nuclear war meant the destruction of human civilisation or the end of human life on earth (Martin 1982a). Therefore, it might seem, stopping nuclear war from occurring should have been overwhelmingly important.

What about the evidence? Strangely enough, there was little scientific backing for the belief that global nuclear war would kill everyone on earth (Martin 1982b). Blast, heat and fallout would be devastating, but mainly in the areas targeted and downwind, with the likelihood of killing tens or hundreds of millions of people, mainly in western Europe, the Soviet Union and the us. The majority of the world’s population – in places such as Africa, South America and south Asia – would be unscathed.

Writer Jonathan Schell argued in his book *The Fate of the Earth* that nuclear war could indeed lead to human extinction, something he called “the second death” – the first death being one’s

own death – and therefore the issue was of paramount importance (Schell 1982). Schell’s argument relied on the effects of ozone depletion and was not supported by scientific work at the time.

In 1983, scientists reported on new studies of the effect of dust and smoke lofted into the upper atmosphere by nuclear explosions and subsequent fires, blocking the sun and leading to lowered temperatures, a consequence called “nuclear winter”. Although once again the spectre of extinction was hinted at, it was never likely that cold weather and darkness could kill everyone; it would affect countries in the northern hemisphere most severely (Pittock 1987).

Atmospheric scientist Carl Sagan used the prospect of nuclear winter to argue that immediate drastic cuts in nuclear arsenals were imperative (Sagan 1983-84). However, this did not appear to have influenced the nuclear weapons states to any degree.

While debates over the effects of nuclear war continued, this seemed to have little effect on popular opinion. After all, prior to nuclear winter studies, people already thought nuclear war was devastating. But this belief did not translate into popular action.

Fading of Movement

With the end of the cold war in 1989, the international movement against nuclear war faded into virtual invisibility. Whereas in 1982 millions of people had marched against nuclear war, less than a decade later most peace organisations had shrunk to a few core campaigners. The peace movement periodically surged in following years, most dramatically in 1990-91 against the first Gulf war and in 2003 against the invasion of Iraq. The issue of nuclear war had dropped from the main agenda.

Yet this was not because the danger had disappeared. us and Russian nuclear arsenals declined in size after the 1980s but remained sufficiently large to kill tens of millions of people and possibly trigger nuclear winter. The government of Pakistan in 1998 demonstrated nuclear capability and in 2001-02 tensions between India and Pakistan increased dramatically: a nuclear war was averted, but it may have been a near miss.

The *Bulletin of the Atomic Scientists*, a magazine addressing nuclear and other matters, since 1947 has published a “doomsday clock” indicating the number of minutes until midnight, with midnight signifying nuclear war. The editors over the years have moved the clock nearer or further from midnight depending on their assessment of the global risk of nuclear war. Even though the anti-nuclear war movement faded after the 1980s, the *Bulletin’s* doomsday clock is still ominously close to midnight. Although the risk and likely consequences of nuclear war seem less today than during the height of the cold war, significant dangers remain, including existing arsenals, nuclear terrorism and the possibility of more governments developing nuclear weapons (Cirincione 2008).

Similarities with Climate Change

Nuclear war, as a social issue, has several important similarities with climate change. Both are enormous in their potential impacts on the environment and human life. Both seem to have a tipping point beyond which catastrophe seems unavoidable or irreversible: the outbreak of nuclear war and positive feedback

momentum in global warming. Both issues are remote in the sense that there is little impact on most people in the world in the here and now: they are looming problems. If or when they eventuate, there will be major effects on future generations. Both, many campaigners feel, require governments to act, even though governments have played major roles in causing the problems.

Nuclear war would, most probably, be a sudden event, whereas climate change is occurring gradually. Even so, there is a similarity in *knowledge* about these events. Nuclear war could occur any time, though it is more probable at times of heightened international tension: there is a significant uncertainty about whether and when nuclear war might occur. There are also significant uncertainties concerning climate change: how fast it is occurring and when key events such as the melting of Arctic ice might happen.

The similarities between the issues of nuclear war and climate change suggest that campaigners should try to learn from previous movements (Overy 1982; Young 1984). In particular, the trajectory of the international movements against nuclear war offers several lessons for climate change campaigners.

First, the anti-nuclear weapons movements expanded dramatically yet collapsed just a few years later, even though the underlying problem – the risk of major catastrophe from nuclear war – remained much the same. This suggests that movements should aim to become sustainable, building structures or approaches that can maintain popular involvement over the long term.

Second, crisis framing was insufficient to create the huge mobilisation necessary to bring about fundamental change in the nuclear

system. Indeed, campaigners who used the arguments of Jonathan Schell and Carl Sagan that nuclear war was the ultimate catastrophe, failed to impart their sense of crisis to government decision-makers.

Third, crisis framing appeared to put an emphasis on short-term solutions implemented by governments – an orientation to reformism (Roberts 1979). This sort of framing neglected the development of long-term activism to bring about changes in the structure of the state system that underlies the nuclear threat (Barnet 1972; Kovel 1983; Martin 1984).

Ever since the development of nuclear weapons, opponents have argued that they are so horrible that they should never be used. Yet numerous governments have developed and deployed them, their leaders seemingly unperturbed by arguments based on the common good. Anti-nuclear movements have come and gone and nuclear armaments have remained, even though the alleged justification for having them – the threat from the enemy – appeared to disappear with the end of the cold war.

The persistence of nuclear armaments suggests that the driving forces behind them are deeper than the standard justification offered by governments: deterrence. Arguably, ongoing commitments to nuclear weapons – and to military strength more generally – are linked to the maintenance of state power, the link between state power and corporate interests (including via military-industrial complexes), military systems, and science and technology geared to military priorities. Whatever the precise explanation, the point here is that getting rid of nuclear weapons is not just a matter of convincing a few people at the top that the

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world would be better off without them – that has been attempted for decades without much success.

Institutionalised War System

Nuclear weapons are part of an institutionalised war system. That means that getting rid of them has to be a long-term process of social change, including challenges to the systems in which the nuclear mentality thrives, and developing alternatives. Moving forward on this long-term process requires vision, commitment and strategic thinking. Alarming people by the spectre of nuclear devastation and the possibility of human extinction might work for short-term goals but has had limited success in helping long-term efforts to transform the war system.

There is another disadvantage of seeing nuclear war as an all-or-nothing struggle, as either preventing nuclear war or suffering the ultimate catastrophe. It means peace activists are not prepared for the aftermath of an actual nuclear war (Martin 1982c). It is possible that a nuclear exchange could be limited, for example a few bombs exploded in a hot spot, an attack by terrorists who have acquired weapons, or an accidental launch of nuclear missiles. The result could be massive loss of life – from tens of thousands of people to a few million, for example – but still far from putting human survival at risk, indeed less than some previous wars.

A limited nuclear exchange is a possibility, but peace activists are completely unprepared because so much campaigning has used crisis framing with the message “we’d better stop nuclear weapons or it’s all over”. This would be like fire brigades putting all their energy into warning people about the consequences of fires but not preparing to deal with an actual one. Nuclear war creates much bigger fires than any brigade has had to deal with, but the principle is the same.

The aftermath of an actual nuclear war holds several possibilities. One is government crackdowns on all forms of dissent, to mobilise the population against the enemy, a political repression that would make the post-9/11 “war on terror” seem mild by comparison. A parallel process would be popular revulsion against nuclear weapons, especially against governments believed to have authorised them. This would be an opportunity to make dramatic gains for peace. But without preparation by anti-nuclear campaigners, there is a greater risk that governments would respond by gearing up for an even more devastating nuclear future.

Conclusions

Should climate change be considered an emergency? Our aim here is to present some cautionary comments. Most discussion has approached the issue in terms of whether climate change really is an emergency. For example, does the evidence show that warming is proceeding faster than previously thought? Is there a tipping point beyond which climate change is irreversible? How soon and how drastically must carbon emissions be reduced?

This way of thinking seems to be concerned with scientific matters, but actually it builds in social assumptions. Many of those who talk of a climate crisis or emergency assume that evidence about climate processes means that addressing climate change is the most urgent social issue for which the solution is policy change at the top, and that thinking of the issue as an emergency is an effective

way of bringing about change. It is not the use of the word “emergency” that is necessarily significant here but rather the assumptions that so commonly go along with the word. We think these assumptions need to be brought out into the open and discussed.

Let us be clear. We believe climate change is a vitally important issue. We believe action should be taken, the sooner and the more effective the better, to prevent the adverse consequences of global warming. Calling climate change an emergency might be a good approach – but on the other hand it might not be, indeed it might be counterproductive. We think both the advantages and disadvantages of emergency framing should be discussed.

Prioritising Climate Change

The emergency frame implicitly prioritises climate change above other issues. On the other hand, some critics, like Lomborg (2006), argue that other issues should have higher priority. We think it can be a mistake to prioritise one issue over others, because this may encourage competition between activists rather than cooperation.

There are plenty of issues of vital importance in which millions of lives are at stake, among them nuclear war, global poverty, HIV, inequality – and smoking, which could kill one billion people this century (Proctor 2001). It is natural to expect campaigners on other vitally important issues – such as torture, sexual slavery and genocide – to remain committed to their concerns. Rather than prioritise climate change as more urgent, it may be more effective for climate change activists to work with other social justice campaigners to find ways to help each other – indeed, some are doing this already.

Emergency framing can be used to sideline dissent within the climate change movement itself. For example, those who advocate highly ambitious targets for CO₂ reduction may seek the high ground, presenting their position as the only option for humanity and stigmatising others as selling out. Internal democracy, divergent approaches and openness to new viewpoints can be dismissed as unaffordable luxuries when the future is at stake. Our view, instead, is that because climate change is such an important issue, maintaining democracy, diversity and dialogue within the movement is even more vital.

One of the consequences of framing climate change as an emergency is an orientation to solutions implemented at the top, usually by government. The assumption is that only governments have the capacity to create change quickly enough. The subtext is that change must be imposed on a reluctant population. In the longer term, this is not good politics, because the way to lasting change is through popular mobilisation, with as many people as possible supporting the change and getting behind it. Imposing policies from the top runs the risk of provoking a backlash, with gains in the short-term reversed later on.

With climate change, the additional shortcoming of focusing on governments – as opposed to building a mass movement that governments feel obliged to follow – is that governments are the least reliable sources of support. Some are captives of fossil fuel lobbies; some operate massive fossil fuel industries themselves. More deeply, governments depend on economic growth to maintain tax revenues used to maintain functions that perpetuate government itself – various bureaucracies, including the military, police and prisons – and to pacify constituencies and lobbies through expenditure, for the rich

as much as the poor. Few governments are keen to promote a steady-state economy, a necessity for long-term ecological sustainability.

A third major shortcoming of emergency framing is that it is not effective. Psychologically, calling something a crisis may lead to disbelief – if immediate evidence of dramatic effects is not apparent – or disempowerment and withdrawal because there seems to be little an individual can do to address an overwhelming problem. Since large numbers of people already think that climate change is important, the key to making them active is to provide practical ways of engaging. Saying that the problem is even bigger and more urgent than before is not likely to make people do more if they cannot already see practical ways to act.

Risks of Emergency Framing

Emergency framing is risky. It is, ironically enough, not a good way to create a sustainable movement – a movement that continues to be strong a decade or more down the track after the media

have moved on to other issues. The movements against nuclear war fell into this trap: most activists concentrated on protesting in the here and now, demanding short-term change. But the problem of nuclear weapons, part of the wider problem of the mobilisation of science and technology for warfare, was never going to go away in a few years. The movement rose and fell, leaving only a few persistent campaigners attempting to keep the issue alive in the intervening years.

The same applies to the climate change movements. They are active now in many countries, but will they be just as active in five or ten years? The challenge is to build a long-term movement, cooperating with other movements, that will persist after media attention declines should climate change not occur as rapidly as scientists anticipate, and will also persist should some of the more calamitous scenarios eventuate. The world needs a sustainable climate change movement built not on fear but on widespread commitment.

REFERENCES

- ABC (2007): "UN Chief Says Global Warming Is 'An Emergency'", Australian Broadcasting Corporation, 11 November.
- An Inconvenient Truth* (2006): Paramount Classics and Participant Productions.
- Barnet, Richard J (1972): *Roots of War* (New York: Atheneum).
- Bennett, Lisa (2008): "The Hot Spot", *Greater Good* 5(2), Fall: 40-43.
- Borenstein, Seth (2007): "Arctic Sea Ice Gone in Summer Within Five Years?" National Geographic News, 12 December.
- Brown, Lester R (2008): *Plan B 3.0: Mobilising to Save Civilisation* (New York: Norton).
- Cascio, Jamais (2009): "Plan B: Geoengineering Is Risky But Likely Inevitable, So We Better Start Thinking It Through", *Grist*, 9 February, accessed 25 May 2009, <http://www.grist.org/article/Plan-B>.
- Cirincione, Joseph (2008): *Bomb Scare: The History and Future of Nuclear Weapons* (New York: Columbia University Press).
- Climate Action Summit (2009): "Our 2009 Campaign Objectives", Campaign Strategy and Development Stream Outcomes", accessed 25 May 2009, <http://www.climatesummit.org.au/campaignstrategy-anddevelopmentstreamoutcomes>
- David Suzuki Foundation (2006): *Background: Who's Meeting Their Kyoto Targets?*, accessed 25 May 2009, http://www.davidsuzuki.org/files/climate/Kyoto_Progress.pdf
- European Environment Agency (2009): "CSI 013 – Atmospheric Greenhouse Gas Concentrations – Assessment Published Mar 2009", accessed 25 May 2009, http://themes.eea.europa.eu/IMS/ISpecs/ISpecification2004100713171/Assessment1234255180259/view_content
- Flannery, Tim (2008): "Now or Never: A Sustainable Future for Australia?", *Quarterly Essay*, 31.
- Garnaut, Ross (2008): "Final Report", *The Garnaut Climate Change Review*, accessed 25 May 2009, <http://www.garnautreview.org.au/index.htm>
- Gore, Al (2007): "The Nobel Peace Prize: Nobel Lecture", Oslo, 10 December.
- Hansen, James (2007): "Scientific Reticence and Sea Level Rise", *Environmental Research Letters*, 2 (April-June).
- (2008): "Tipping Point: Perspective of a Climatologist" in W Woods (ed.), *State of the Wild 2008-2009: A Global Portrait of Wildlife, Wildlands and Oceans* (Washington DC: Island Press).
- Hansen, James, Makiko Sato, Pushker Kharecha, Gary Russell, David W Lea and Mark Siddall (2007): "Climate Change and Trace Gases", *Philosophical Transactions of the Royal Society* 365: 1925-54.
- Hansen, James, Makiko Sato, Pushker Kharecha, David Beerling, Robert Berner, Valerie Masson-Delmotte et al (2008): "Target Atmospheric CO₂: Where Should Humanity Aim?", *The Open Atmospheric Journal*, 2: 217-31.
- Houghton, John (2008): "Foreword", *Climate Safety: In Case of Emergency* (UK: Public Interest Research Centre), accessed 25 May 2009, <http://climatesafety.org/wp-content/uploads/climatesafety.pdf>
- Hulme, Mike (2006): "Chaotic World of Climate Truth", BBC News, 4 November.
- IPCC (2007): "Synthesis Report", *Fourth Assessment Report: Climate Change 2007*, accessed 25 May 2009, http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf.
- Jackson, Tim (2009): *Prosperity Without Growth? The Transition to a Sustainable Economy* (London: Sustainable Development Commission).
- Kovel, Joel (1983): *Against the State of Nuclear Terror* (London: Pan).
- Lomborg, Bjørn (2006): *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge: Cambridge University Press).
- Lovelock, James (2006): *The Revenge of Gaia: Why the Earth Is Fighting Back – And How We Can Still Save Humanity* (London: Allen Lane).
- Lovelock, James E and Chris G Rapley (2007): "Ocean Pipes Could Help the Earth to Cure Itself", *Nature* 449 (27 September): 403.
- Martin, Brian (1982a): "Critique of Nuclear Extinction", *Journal of Peace Research*, 19(4): 287-300.
- (1982b): "The Global Health Effects of Nuclear War", *Current Affairs Bulletin*, 59(7): 14-26.
- (1982c): "How the Peace Movement Should Be Preparing for Nuclear War", *Bulletin of Peace Proposals*, 13(2): 149-59.
- (1984): *Uprooting War* (London: Freedom Press).
- Meijnders, Anneloes L, Cees J H Midden and Henk A M Wilke (2001): "Role of Negative Emotion in Communication about CO₂ Risks", *Risk Analysis*, 21(5): 955-66.
- Millennium Ecosystem Assessment (2005): *Ecosystems and Human Well-being: Synthesis* (Washington DC: Island Press).
- Monbiot, George (2006): *Heat: How to Stop the Planet Burning* (London: Allen Lane).
- Moser, Susanne C and Lisa Dilling (2004): "Making Climate Hot: Communicating the Urgency and Challenge of Global Climate Change", *Environment*, 46(10): 32-46.
- Nisbet, Matthew C (2009): "Communicating Climate Change: Why Frames Matter for Public Engagement", *Environment* 51:(2): 12-24.
- Overy, Bob (1982): *How Effective Are Peace Movements?* (Montreal: Harvest House).
- Pittock, A Barrie (1987): *Beyond Darkness* (Melbourne: Sun).
- Pope, Vicky (2009): "Scientists Must Rein in Misleading Climate Change Claims", *The Guardian*, 11 February.
- Proctor, Robert N (2001): "Tobacco and the Global Lung Cancer Epidemic", *Nature Reviews Cancer*, 1 (October): 82-86.
- Repower America (2008): "The Plan: Repower America", accessed 25 May 2009, <http://www.repoweramerica.org/plan/>
- Roberts, Alan (1979): *The Self-Managing Environment*, (London: Allison and Busby).
- Ruiter, Robert A C, Charles Abraham and Gerjo Kok (2001): "Scary Warnings and Rational Precautions: A Review of the Psychology of Fear Appeals", *Psychology and Health*, 16: 613-30.
- Sagan, Carl (1983-84): "Nuclear War and Climatic Catastrophe: Some Policy Implications", *Foreign Affairs*, 62: 257-92.
- Schell, Jonathan (1982): *The Fate of the Earth* (New York: Knopf).
- Smith, Joel B, Stephen H Schneider, Michael Oppenheimer, Gary W Yohe, William Hare, Michael D Mastrandrea et al (2009): "Assessing Dangerous Climate Change Through an Update of the Intergovernmental Panel on Climate Change (IPCC) 'Reasons for Concern'", *Proceedings of the National Academy of Sciences*, early edition online, accessed 25 May 2009, <http://www.pnas.org/content/early/2009/02/25/0812355106.full.pdf>
- Spratt, David and Phillip Sutton (2008): *Climate Code Red: The Case for a Sustainability Emergency* (Melbourne: Scribe).
- Stern, Nicolas (2006): *Stern Review on the Economics of Climate Change: Final Report* (London: HM Treasury).
- Thomas, Jim and Paul Fitzgerald (2008): "Technofixes: Climate Solution or Corporate Scam?", *New Internationalist*, August: 22-24.
- Weber, Elke U (2006): "Experience-based: and Description-Based Perceptions of Long-term Risk: Why Global Warming Does Not Scare Us (Yet)", *Climatic Change*, 77: 103-20.
- Wittner, Lawrence S (1993-2003): *The Struggle Against the Bomb*, 3 volumes (Stanford, CA: Stanford University Press).
- Young, Nigel (1984): "Why Peace Movements Fail: An Historical and Social Overview", *Social Alternatives*, 4(1): 9-16.