

5. ‘Carbon colonialism’: Pacific environmental risk, media credibility and a deliberative perspective

ABSTRACT

The effects of climate change are already occurring in all continents and across the oceans, and the situation has deteriorated since the last account in 2007, warned the United Nations scientific agency charged with monitoring and assessing the risks earlier this year. According to the Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC, 2014), the world is ill-prepared to manage warming and an increase in magnitude is likely to lead to ‘severe and pervasive impacts that may be surprising or irreversible’. Seriously at risk are Small Island Developing States (SIDS), including several in the Pacific, such as Kiribati, Marshall Islands and Tuvalu. The UN has declared 2014 as the International Year of SIDS and a summit was hosted in Samoa during September. Living in one of the world’s most vulnerable regions to the impact of climate change and the challenges of aid effectiveness and adaptation funding, journalists are at a critical crossroads. This article examines environmental risk, media creativity and a contradiction between normative and traditional Western journalism values and the Pacific profession’s own challenges of ‘adaptation’ in telling the story of global warming with a deliberative perspective.

Keywords: climate change, democracy, deliberative journalism, environmental journalism, environmental risk, global warming, objectivity, media freedom, media mobilisation, media plurality

DAVID ROBIE
Pacific Media Centre

APOCALYPTIC images have been frequent on the wide cinema screen: the forces of nature wreaking havoc on Planet Earth and terrorising vulnerable humans peacefully existing in this ecosystem. Sensational images are displayed of what may happen when global warming

takes over abruptly. In the 2004 film *The Day After Tomorrow*, an abrupt and catastrophic climate change was portrayed. Due to the anthropogenic impact on global warming, the Larsen B ice shelf, a huge floating ice mass on the eastern side of the Antarctic Peninsula, broke off, setting off a huge chain reaction of storms, tornadoes and tsunamis. This triggered flooding in Manhattan, hailstorms in Tokyo, tornadoes in Los Angeles and Lady Liberty sank under water in a gigantic freeze.

Five years later, in another global warming film, *2012*, also directed by Roland Emmerich, the catastrophes were even more devastating with ocean floodwaters engulfing London Bridge, the Vatican collapsing with its dome crushing worshippers and a tidal wave crash-landing a jetliner onto the White House. This film was inspired by controversial theories that the calendar of the ancient Mayans foretold the end of civilisation on 21 December 2012.

Such films, while hugely entertaining, have drawn scathing criticism over media portrayals of global warming through the movie industry, with the film media being accused of creating mass confusion on the realities of climate change. On the reviews website *Rotten Tomatoes*, for example, *The Day After Tomorrow* was condemned as 'a popcorn film with a fact-based concept and that's all it is' (Vasquez, 2009).

In the case of *2012*, the blockbuster described as the 'mother of all disaster films' was criticised as a Western distortion of the 'prophecy' and indigenous traditions, which was greeted with a 'mixture of confusion, exasperation and anger' by contemporary Maya in Guatemala and Mexico (Sherwell & Garcia, 2009). Yet the most disturbing contemporary film about global warming was not science fiction at all. It was the former US Vice-President Al Gore's 2006 Academy-Award-winning documentary *An Inconvenient Truth*. Since then the self-described 'recovering politician' has frequently been depicted as the planet's 'eco-warrior-in-chief' (Haber, 2013).

In early 2013, Al Gore published *The Future: Six Drivers of Global Change*, which was particularly aimed at the education of schoolgirls. He was asked in an interview with *The Huffington Post's* Leigh Haber, why schoolgirls were the target? Gore replied:

Population growth is straining the Earth's resources to the breaking point, and educating girls is the single most important factor in stabilising that. That, plus helping women gain political and economic power, and safeguarding their reproductive rights. (Haber, 2013)

Another prescient film was Jon Shenk's, *The Island President*, the story of President Mohammed Nasheed of the Indian Ocean republic of the Maldives, who ushered in democracy to his nation in response to three years of despotic rule only to be forced out of office by a 'constitutional coup' in disputed circumstances in 2012. Nasheed was one of the leaders of Small Island Developing States (SIDS) in Copenhagen in 2009 who were celebrated for campaigning for a courageous and decisive global policy on global warming. Becoming president at 41, he faced a far tougher adversary than the dictator Maumoon Abdul Gayoom he replaced—the rising ocean surrounding his country.

The effects of climate change are already occurring in all continents and across the oceans and the situation has deteriorated since the last account in 2007, warned the United Nations scientific agency charged with monitoring and assessing the risks earlier this year. According to the Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC, 2014), the world is ill-prepared to manage warming and an increase in magnitude is likely to lead to 'severe and pervasive impacts that may be surprising or irreversible'. Seriously at risk are SIDS nations, including several in the Pacific such as Kiribati, Marshall Islands and Tuvalu. The UN has declared 2014 as the International Year of SIDS and a summit was hosted in Samoa during September. Living in one of the world's most vulnerable regions to the impact of climate change and the challenges of aid effectiveness and adaptation funding, journalists are at a critical crossroads. This article examines environmental risk, media creativity and a contradiction between normative and traditional Western journalism values and the Pacific profession's own challenges of 'adaptation' in telling the story of global warming with a deliberative perspective.

'Failed' states—a global challenge

Militarisation, ethnic conflicts, environmental challenges and resource extraction issues have contributed to the notion of potentially 'failed' states in the Pacific, as speculated about the Solomon Islands by *The Economist* more than a decade ago (*The Pacific's first failed state?*, 2013). 'Failed' states represent a global challenge in the environmental context, not just within the so-called 'war on terror' frame and this issue was examined at a conference at the University of the South Pacific in July 2013. Pacific nations feature in the contested annual Failed States Index compiled by the US conservative think tank Fund for Peace (FFP) (<http://ffp.statesindex.org/>) The fund describes itself as 'assessing the pressures experienced by nations based on

'FAILED' STATES AND THE ENVIRONMENT

social, economic, and political indicators such as demographic pressures, refugee flows, uneven economic development or severe economic decline, and human rights'. But the index is severely criticised for offering a 12-point schema based on 'depressing, negative and subjective' criteria and measures anything from population booms and refugee increases to 'legitimacy of the state' (Leigh, 2012; Ratuva, 2013, 2014).

The term has been used rather loosely, and wrongly, by news media in a Pacific context in recent years, especially related to the Solomon Islands (51st in the 2013 index) over the ethnic conflict at the start of the millennium,;in Papua New Guinea (currently 53rd) over the Bougainville civil war and a constitutional crisis in 2011-2012 when two parallel governments were dead-locked; and even when commenting on post-coup Fiji (67th). Timor-Leste is the highest (or worst) ranked nation in the Pacific region, at 32nd. Among critics of this classification schema are Pacific political economist Steven Ratuva, who condemns mainstream media's 'repetitive polemics' and 'unsavoury images of Pacific island states as domains of corruption and instability':

Predictably, the Pacific Island states are ranked in the lower end of global stratification because in most cases the measuring variables used are culturally, historically and ideologically biased in favour of neoliberal and Western paradigms. (Ratuva, 2014, p. 40)

In fact, by the Fund for Peace's own criteria, the US is a 'failed state' in terms of its disregard for international law, argues Chomsky (2006).

In June, 2013, a new version of a World Bank scientific report, *Turn Down the Heat: Why a 4°C Warmer World Must be Avoided*, was published analysing the likely impacts of contrasting forecasts of 2°C and 4°C warming on agricultural, production, water resources and coastal vulnerability for affected populations in the South-East Asia region. While the Pacific was not covered in depth, the report found 'many significant climate and development impacts are already being felt in some regions, and in some cases multiple threats of increasing extreme heat waves, sea-level rise, more severe storms, droughts, floods are expected to have further severe negative implications for the poorest' people on the planet (World Bank, 2013, p. 1).

Scientific reviews published since the first *Turn Down the Heat* report in 2012, have indicated that recent greenhouse gas emissions and future emission trends 'imply higher 21st century emission levels than previously projected'.

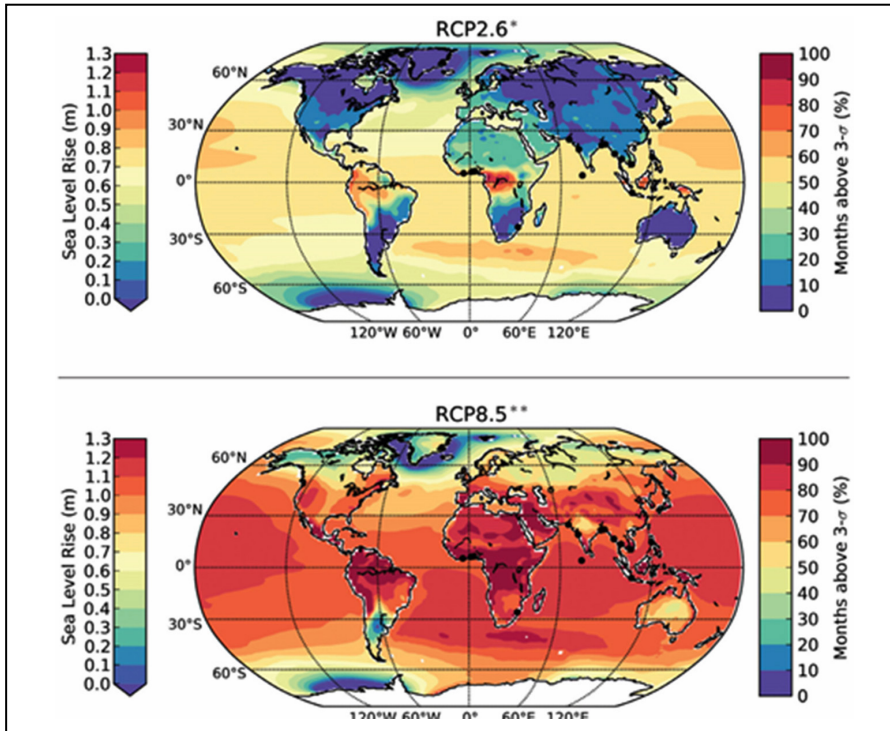


Figure 1: Projected sea level rise and summer heat over land in a 2°C world (upper panel) and 4°C world (lower panel). Source: World Bank (2013), p. 2.

Consequently, ‘strong and decisive action must be taken to avoid a 4°C world—one that is unmanageable and laden with unprecedented heatwaves and increased human suffering’ (p. 11).

The report, prepared by the Potsdam Institute for Climate Impact Research and Climate Analytics, expands on the 2012 report, which concluded the world would warm by 4°C above pre-industrial levels by the end of this century without concerted action now. It reaffirms the International Energy Agency’s 2012 assessment that without further mitigation action there is a 40 percent chance of warming exceeding 4°C by 2100 and even a 10 percent chance of it exceeding 5°C in the same period. Supporting the findings of that report, the graphics reproduced show (Figure 1 *top*) in a 2°C world, sea-level rise is projected to be less than 70cm (yellow over oceans) by 2100; (Figure 1 *below*) in a 4°C world, sea-level rise is projected

to be more than 100cm (orange over oceans). The *Turn Down The Heat* report examines at the likely impacts of present day (0.8°C), 1.5°C, 2°C and 4°C warming on agricultural production, water resources, coastal ecosystems and cities across Sub-Saharan Africa, South Asia and South-East Asia. ‘South-East Asia’ includes the western Pacific (Papua New Guinea and Timor-Leste)—Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Papua New Guinea, the Philippines, Singapore, Thailand, Timor-Leste and Vietnam (p. 6).

In March 2014, the IPCC’s Fifth Assessment Report concluded that responding to climate change involves making choices about risks in a changing world. The report said that the risks of climate change had become ‘increasingly clear—though climate change will also continue to produce surprises’ (IPCC Report, 2014). The report identified vulnerable people, industries and ecosystems around the world. It also found that

risk from a changing climate comes from the vulnerability (lack of preparedness) and exposure (people or assets in harm’s way) overlapping with hazards (triggering climate events or trends). Each of these three components can be a target for smart actions to decrease risk. (Ibid.)

‘We live in an era of man-made climate change,’ UN and Climate Change quoted one of the IPCC Working Group co-chairs, Vincent Barros, as saying. ‘In many cases, we are not prepared for the climate-related risks that we already face (Ibid.)’. The report indicated more than 800 global scientists were ‘saying with 95 percent certainty’ that climate change is anthropogenic (Harvey, 2014). Following a SIDS summit in Apia, Samoa, in early September 2014, Nauru President Baron Waqa presented a report at a UN Climate Change conference in New York later that month that declared vulnerable small Pacific countries were taking the lead against climate change effects despite their minor emissions: ‘SIDS have set up some of the most ambitious renewable energy and energy efficient targets in the world. They have been adopted in our legislation and enshrined in international declarations, such as the Barbados and Majuro Declarations’ (SIDS take lead, 2014).

Bleak future for the Pacific

The future still looks bleak for the South Pacific. Just how bleak, has been graphically portrayed by Tom Zurbrycki’s 2011 documentary *The Hungry Tide* (<http://thehungrytide.com.au/>) This film focuses on the Micronesian nation of Kiribati, which is in the front line of climate change. Global warming

threatens the lives of 105,500 people in this 'vulnerable and forgotten corner of the Pacific' as the sea rises, a film profile declares.

Maria Timon, an I-Kiribati woman who lives in Sydney ... has been given the task of alerting the world to her sinking homeland. The film follows Maria from a small Sydney high school to the world stage. Shy at first, we watch her grow in confidence as she takes her country's message to the 2009 Copenhagen Climate Change Conference, and a year later to Cancun. Copenhagen ends in failure, and evidence emerges of Australia's complicity in silencing Pacific nations. (Zurbrycki, 2011)

Evocative though the documentary may be for a Western audience, *The Hungry Tide* and comparable films like *There Once Was An Island* (2010) have limited value in raising awareness of global warming among Pacific Islanders themselves, especially journalists and those in the media, according to an Auckland-based i-Kiribati researcher and newspaper publisher on climate change in his country. Taberannang Korauaba argues documentaries are generally perceived in some Pacific communities as 'entertainment'. The message is not taken seriously. Korauaba, editor of *The Kiribati Independent*, adds: 'There is no Kiribati word for documentaries' (2013, p. 306). He also notes that the audience is conveyed to an outer island, Beru, where protagonist Maria Timon's entire family live. He argues that the producers could have explored the interesting traditional legends to make *The Hungry Tide* a 'well-informed and researched documentary'.

The Hungry Tide and *There Was Once An Island* have both raised the profile of climate change to an outside world but they have done little to raise awareness of the media in the Pacific. A new study on why the media feel reluctant to cover news on documentaries and movies on the island may assist future investigations. In Kiribati, video clippings, DVD, documentaries are called movies and they are for entertainment only. (Korauaba, 2013, p. 307)

In his research, Korauaba favours an indigenous media methodological approach to global warming in his country: '*Te Karoronga*, deliberative journalism or a culturally planned deliberative journalism is a model that will give voice to the voiceless, and allow the community to be part of climate change adaptation, and raises understanding and awareness about actions people can take to help save their islands.' He argues that *Te Karoronga* must

start with the Kiribati media first by forming a media council and by working cooperatively to report climate change 'before outsiders run projects for them' (Korauaba, 2012, p. 125).

Embarking shortly on the field work for a wider Micronesian doctoral study, Korauaba argues that local media in Kiribati are caught between the growing celebrity relationship with President Anote Tong and foreign news media and the lagging behind of NGOs and the domestic community. He has described his model as Culturally Planned Deliberative Journalism (CPDJ) based upon the indigenous cultural concepts of cooperation and teamwork, *te karoronga*, *te uaai*, *te airiiri* and *te kataanga*. Korauaba prefers the term *Te Karoronga* 'because its sound is similar to *Kareke Rongorongo*, the local definition of journalism, or *Te Karoronga*' (p. 24). He has since published a substantial extract from his research in the *Pacific Journalism Monograph* series (2014).

President Tong has paid tribute to Fiji for being the only country prepared to offer Kiribati a haven from rising sea levels. According to Fiji news media, Kiribati paid more than US\$8 million to a church group for a 2000 hectare freehold property on the northern island of Vanua Levu (Tong explains Kiribati land deal in Fiji, 2014) and the country launched an Education for Migration programme. Tong has declared that his country has less than two decades left of existence, before facing being eventually engulfed by the sea.

If nothing is done, Kiribati will go down into the ocean. By about 2030 we start disappearing. Our existence will come to an end in stages. First, the freshwater lens will be destroyed. The breadfruit trees, the taro, the saltwater is going to kill them. (Goldberg, 2013)

Owning Pacific adaptation strategies

A 2012 report by Oxfam, *Owning Adaptation in the Pacific: Strengthening governance of climate adaptation finance*, has called for a 'culture of learning', 'empowering communities through effective participation' and respecting traditional knowledge and developing culturally informed climate change awareness (Coates, Maclellan & Meads, 2012, p. 41). The report also highlighted the importance of media in contributing to Pacific global warming awareness and adaptation strategies, noting:

In spite of a growing awareness about climate issues—especially among urban youth who have privileged access to information, either through

schools, the internet or youth forum attendance—many people across the region cannot easily access information that could aid their responses to climate change. Many interviewees stressed this as a major challenge to raising community awareness.

This challenge is heightened in Melanesian societies like Papua New Guinea, Solomon Islands and Vanuatu, which have diverse populations, hundreds of different languages and communities spread over vast areas, from peri-urban squatter settlements to outlying islands (p. 34).

The Pacific Islands Framework for Action on Climate Change 2006-2015 and the 2011-2015 Action Plan coordinated by the South Pacific Apia-based Secretariat of the Pacific Regional Environment Programme (SPREP), established in 1982, are a foundation for this strategy. In 2012, SPREP redeveloped a Pacific Climate Change Portal (pacificclimatechange.net) to provide resources for the region. A six-pronged strategy targeted: 1) adaptation measures to assist Pacific communities to address the impact of climate change; 2) ‘open, transparent, accountable, equitable and responsive’ governance and decision-making; 3) better understanding of climate change; 4) strengthening expertise through education, training and awareness; 5) a contribution to reducing global greenhouse gases emissions (in spite of the Pacific Islands share being negligible); and 6) successfully engaging partners with ‘commitment and political will’.

As part of a global campaign in 150 countries leading to People’s Climate Mobilisation in response to ‘global warming spiralling out of control’ in September 2014, Pacific Climate Change Warriors from Fiji sent some 30 canoes to Newcastle, New South Wales, on October 16 to blockade the world’s largest coal port (How Pacific islanders are fighting climate change with canoes, 2014).

According to global peace analysts and advocates Alyn Ware and Rob Van Riet (2013), writing in the *Pacific Ecologist*, in the 1980s nuclear weapons were one of the key issues occupying media, public and political attention.

Those of us who were also warning about threats to human survival from climate change were ignored. A huge blanket of complacency smothered the climate change issue. Today the situation is the reverse. Climate change is in the front seat of the global political vehicle and nuclear weapons are hidden away, forgotten under the carpet in the boot. (Ware & Van Riet, 2013, p. 35)



Figure 2: Climate Change Warriors from Fiji: 'We are not drowning. We are fighting.' world.350.org/pacificwarriors/

How has the media been responding to this? Not very well since the failure of Copenhagen in 2009, especially in Australasia and the Pacific. In spite of the strong Pacific presence and campaigning by many vulnerable states at that conference, the failure of the developed nations, and of several developing countries, such as Brazil and also Papua New Guinea, sparked widespread cynicism among many news media. It also distorted so-called 'balanced' journalism, which gave the minority of climate change deniers a disproportionate voice. Climate change is more than an 'environmental' issue; it straddles several domains, including activism, academia, development, media and human rights (Robie, 2014, p. 256). Energy columnist David Roberts (2013) argued on the ecology website Grist.org that 'journalism is dying (and being reborn at the same time)' and environmental journalism had declined at a time when it had never been so important:

We need to disentangle the fate of environmental journalism from media coverage of climate change. The two need not be connected. The pressing, nay existential, imperative to divert from the status quo and radically reduce greenhouse gas emissions is necessarily enmeshed in all major human decisions. (Ibid.)

The notion of objectivity is one questioned by some journalists. The decision to cover this or not cover that issue, or to play up this story or play down that one, is subjective. Environmental journalist Bud Ward argues that while seeking a higher standard than 'balance' in journalism on climate change, such subjective decisions 'explain why the best journalists aspire not to some unachievable standard of objectivity, but rather to accuracy and fairness,' which are actually tougher standards. While journalists ought not to be members of vested interest groups, he concedes, how can they also be expected to display impartiality, absolute indifference, to clean air and water versus somewhat polluted air and water? (Ward, 2007, p. 14).

In Australia, for example, one of the world's largest emitters of greenhouse gases (Tiffen, 2010, cited by Chubb & Nash, 2012), an 'overwhelming majority' of Australians accept the case for anthropogenic climate change yet there has been an 'outspoken cluster of deniers and sceptics' with disproportionate influence (Chubb & Nash, p. 37). In an analysis of the 'politics of reporting climate change' at the Australian Broadcasting Corporation, Chubb and Nash provided a case study of an 18-day visit by extremist 'celebrity denier' Christopher Monckton, who regards 'global warming nonsense' as certain to bankrupt the economies of Western countries (p. 38).

As well as exploring ABC editorial policies of balance, the analysis demonstrated how campaigning media, especially newspapers owned by Rupert Murdoch's News Limited, which publishes about 70 percent of the country's national and metropolitan press, present a highly favourable case for the deniers. The analysis also examined the notion of 'balance as bias' (Boykoff & Boykoff, 2004) when two polarised alternative positions (scientific consensus versus populist viewpoints) lead to a 'prejudicial subversion' of the scientific findings (Chubb & Nash, p. 43).

In another Australian survey (cited by Fitzgerald, 2013) in 2011, almost 83 percent of people surveyed were found to believe climate change was happening, yet less than 51 percent believed humans contributed to its effects (p. 204). 'This discrepancy has been attributed to mainstream media [in Australia] over-emphasising the views of a "voluble minority" who profess that global warming is not occurring, or not important' (p. 204). Journalist researcher Bridget Fitzgerald challenged this scenario and wrote a series of articles while ethically attempting to generate an 'accurate, balanced account of climate change issues in Australia' (p. 215).

There is a parallel in the US, where a published survey found that American authorities had failed to mitigate climate change ‘thanks in part to a large number of religious Americans who believe the world has a set expiration date’. Research by David C. Barker of the University of Pittsburgh and David H. Bearce of the University of Colorado indicated that 76 percent of republican Americans in their sample ‘profess a belief in the Second Coming of Christ’, according to their article in *Political Science Quarterly* (Barker & Bearce, 2013).

In a Canadian expose of a climate ‘cover-up’, James Hoggan produced evidence of a sophisticated conspiracy to ‘undermine the public’s understanding of climate change science, much like the campaign to cover-up the misdeeds of the tobacco industry’. He demonstrated in the book that global warming deniers liberally quoted by media and politicians, were not genuine climate scientists and did not publish in scientific journals: ‘These “junk scientists” are mostly paid for by think tanks funded by the fossil fuel industry’ (Hoggan, 2009).

In August 2014, there was a brief wave of media reportage over ‘climate refugees’ when a New Zealand court overturned an earlier ruling and allowed Sigeo Alesana, a qualified teacher, and his wife from Tuvalu who arrived in New Zealand in 2007, to stay there. The Immigration and Deportation Tribunal considered how the family had been rejected in several visa attempts before lodging claims for refugee and protected person status in 2012. A family lawyer says the tribunal accepted that exposure to climate change could be a humanitarian circumstance. It is believed this is the first court ruling anywhere globally that has upheld a successful case involving refugees citing climate change (Family claiming refugee status, 2014). Three months earlier, a Kiribati man, 37-year-old Iona Teitiota, lost his Court of Appeal against the tribunal, which declined granting him refugee status after he had claimed that climate change was threatening his home island (Climate change wary refugees loses appeal, 2014).

Also in August, a documentary about the failure of public policy and the media for two decades over climate change strategy in New Zealand, *Hot Air*, directed by Alister Barry, was greeted by commentators as a devastating critique of the issue, yet the problems for the Pacific contributed by New Zealand policy failures were barely touched on. Noted a leading political commentator, Chris Trotter, barely two months before the New Zealand general election: ‘This chilling exposé of the strategy and tactics adopted by New Zealand’s largest industries to ensure that no effective action to combat climate change

is ever undertaken in this country should be viewed by every voter' (Trotter, 2014). He might have also added every journalist concerned with examining public policy. Much of the struggle over New Zealand intransigence over climate change policy outlined in the documentary was never reported by mainstream media.

In her book about how journalism might support the processes of social deliberation, or the revival of participatory democracy, entitled *International Journalism and Democracy*, Angela Romano (2010, p. 5) quoted John Dewey as saying individuals are 'distracted from public issues by popular entertainment, the demands of corporate capitalism, a focus on lifestyle and personal concerns, and the impact of industrialisation on social structures and networks'. In the introduction, Romano wrote:

The news media are not merely mirrors of society or passive, impartial conveyers of information about social and political affairs. The news media's influence on public agenda setting and communities' understanding of issues and events makes them a major social power in their own right ... [M]edia practitioners, scholars and observers ... have asked whether journalism's power might be wielded to help societies recognise and resolve their problems ... In these days of globalisation and multimedia proliferation, journalism should help the publics that they serve—whether they are small neighbourhoods, or cross-national communities. (Romano, p. 3)

But the gatekeeping routines in many news organisations often make this difficult to realise. Cox (2006, p. 174) argues that many editors and newsrooms find it a challenge to deal with environmental journalism for two major reasons: 1) environmental problems such as climate change make it 'hard for reporters to fit these stories into conventional news formats', and 2) few reporters have sufficient training or education in science or knowledge of complex environmental problems. A key factor in the rise of alternative news and current affairs sources is that 'environmental groups, science advocacy groups and working journalists themselves have grown frustrated with the insufficient depth, range and accuracy' of corporate media coverage of environmental issues (p. 191).

According to the cultural-experiential model of risk defined by the former programme director of Environmental Communication Research at Rutgers University, Peter Sandman (1987), the experience and views of affected

'FAILED' STATES AND THE ENVIRONMENT

communities impacted on by climate change, such as in the Pacific, about what is an acceptable and unacceptable risk needs to be taken into account. Sandman's model analysed 'risk' as the sum of 'hazard' (expected annual mortality) and 'outrage' (public and social factors) (p. 21). Sandman outlined the main outrage factors in his model, as detailed in Table 1.

Table 1: Public outrage factors in environmental risk

1. Voluntariness	Do people assume a risk voluntarily?
2. Control	Can individuals prevent or control risk themselves?
3. Fairness	Are people ask to endure greater risks than their neighbours or others, especially without access to greater benefits?
4. Process	Is the agency defining the risk perceived as honest and concerned about the community, or as arrogant? Does the agency listen? Does the agency tell the community what's going on before making a decision?
Diffusion in time and space	Is the risk spread over a large population or concentrated in one's own community?

Source: Sandman (1987). Risk communication: Facing public outrage, EPA Journal, 13(9), p. 21.

Conclusion

While the threat of climate change is a reality recognised by authoritative and scientific global opinion, concerted international action is hindered to a large degree by media manipulation on the part of vested interests such as the coal industry and political-economic ideologues pushing neoliberal growth policies. The problem is compounded in the Pacific with the three-pronged challenges of 1) the extreme exposure of low-lying atoll-based island nations to climate change; 2) news organisations emulating Western media priorities that leave them rather opaque to urgent action over climate change; and 3) the need for Pacific media to adopt strategies better suited to Pacific culture and development, such as in Kiribati.

A possible scenario is for a form of deliberative journalism, as argued by Romano, that promotes empowering local people and greater popular decision making. Korauaba has also argued for this approach, especially as he has defined it based on the indigenous i-Kiribati notion of *Te Karoronga* with greater public consultation in a Pacific context. This approach is very challenging for journalists, but it is ideally suited to environmental and climate change journalism, especially in the Pacific. This is also flagged in a book about *Rethinking Journalism* (Peters & Broersma, 2013) and what the profession

needs to achieve in regaining public trust and in confronting the global crisis in journalism by rediscovering a place in democracy. According to one of the authors, Barnhurst (2013, p. 220), journalists need to engage with and question the journalism crisis and 'rethink the trust relations' with the media.

A deliberative journalist needs to file issue-based reports that are sufficiently engaging to capture public attention. But they also need to be incisive, comprehensive and balanced so that the public can frame issues and understand the background and context of these issues. Journalists also need to flag insights and evaluate possible responses or potential solutions. They also need to be far more challenging about the 'think tanks and junk scientists'—for example, does this 'expert' have relevant credentials (in climatology or atmospheric physics)? Is the 'expert' actually publishing in legitimate peer-reviewed scientific journals? Journalists have a real opportunity to tell local, personal stories about climate change which are both scientifically accurate and relevant to people's lives. They can at least do a more inspiring and more relevant job than the politicians about global warming.

References:

- An inconvenient truth* (2006). Presented by Al Gore. [Documentary]. topdocumentaryfilms.com/an-inconvenient-truth/
- Barnhurst, K. G. (2013). 'Trust me, I'm an innovative journalist,' and other fictions. In Peters, C., and Broersma, M., *Rethinking journalism: Trust and participation in a transformed news landscape* (pp. 210-220). London, UK: Routledge.
- Barker, D. C., & Pearce, D. H. (2013). End-times theology, the shadow of the future, and public resistance to addressing global climate change. *Political Research Quarterly*, 66(2), 267-279. doi: 10.1177/1065912912442243
- Boykoff, M. T., & Boykoff, J. M. (2004). Balance as bias: Global warming and the US prestige press. *Global Environmental Change*, 14, 125-136. Retrieved June 13, 2013, from www.eci.ox.ac.uk/publications/downloads/boykoff04-gec.pdf
- Chomsky, N. (2006). *Failed states: The abuse of power and the assault on democracy*. New York, NY: Metropolitan books.
- Chubb, P., and Nash, C. (2012). The politics of reporting climate change at the Australian Broadcasting Corporation. *Media International Australia*, 144, 37-48.
- Climate change wary refugee loses appeal (2014, May 8). TV3 News. Retrieved August 14, 2014, from www.3news.co.nz/nznews/climate-change-wary-refugee-loses-appeal-2014050815
- Coates, B., Maclellan, N. and Meads, S. (2012). *Owning adaptation in the Pacific: Strengthening governance of climate adaptation finance*. Auckland, NZ, and Sydney, Australia: Oxfam.

'FAILED' STATES AND THE ENVIRONMENT

- Cox, R. (2006). *Environmental communication and the public sphere*. London, UK: Sage Publications.
- Dibb, P. (1986). *Review of Australia's defence capabilities: Report for the minister of defence*. Canberra, Australia: Australian Government Publishing Service.
- Family claiming refugee status wins appeal to stay in country (2014, August 5). Retrieved August 14, 2014, from hwww.radionz.co.nz/international/programmes/datelinepacific/audio/20144285/family-claiming-refugee-status-wins-appeal-to-stay-in-country
- Fitzgerald, B. (2013). Climate change reporting in an Australian context: Recognition, adaptation and solutions. *Pacific Journalism Review*, 19(1), 203-219.
- Goldberg, J. (2013, November 21). Drowning Kiribati. *Bloomberg Businessweek*. Retrieved August 13, 2014, from www.businessweek.com/articles/2013-11-21/kiribati-climate-change-destroys-pacific-island-nation
- Gore, A. (2006). *An inconvenient truth: The planetary emergency of global warming and what we can do about it*. Emmaus, Penn.: Rodale Press.
- Gore, A. (2013). *The future: Six drivers of global change*. New York, NY: Random House.
- Haber, L. (2013, March 29). Al Gore, 'Inconvenient Truth' author and global-warming expert, talks about change. *The Huffington Post*. Retrieved June 30, 2013, from www.huffingtonpost.com/2013/03/29/al-gore-inconvenient-truth-global-warming-change_n_2958530.html
- Harvey, G. (2014, May 22). Sinking states: climate change and the Pacific. *The Diplomat*. Retrieved August 14, 2014, from <http://thediplomat.com/2014/05/sinking-states-climate-change-and-the-pacific/>
- Hoggan, J., with Littlemore, R. (2010). *Climate cover-up: The crusade to deny global warming*. Seattle, Wash.: DeSmogBlog
- How Pacific Islanders are fighting climate change with canoes (2014, July 20). *Global Voices*. Retrieved on October 7, 2014, from <http://globalvoicesonline.org/2014/07/20/pacific-islanders-plan-journey-to-australia-canoes-climate-change/>
- IPCC (Intergovernmental Panel on Climate Change (2014, March). Fifth Assessment Report: Climate Change 2014: Impacts, Adaptation and Vulnerability. Retrieved June 13, 2014, from www.ipcc.ch/report/ar5/wg2/
- IPCC (Intergovernmental Panel on Climate Change (2007). Fourth Assessment Report: Climate Change 2007: Synthesis. Retrieved June 13, 2014, from www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html
- IPCC Report: 'Severe and pervasive' impacts of climate change will be felt everywhere. (2014, March 31). UN and Climate Change. Retrieved June 13, 2014, from www.un.org/climatechange/blog/2014/03/ipcc-report-severe-and-pervasive-impacts-of-climate-change-will-be-felt-everywhere/
- Kille, L. W. (2014, April 24). How to mitigate climate change: Key facts from the UN's 2-14 report. Shorenstein Center on Media, Politics and Public Policy. Retrieved August 14, 2014, from <http://journalistsresource.org/studies/environment/climate-change/united-nations-ipcc-working-group-iii-report-climate-change-mitigation>
- Korauaba, T. (2012). Media and the politics of climate change in Kiribati: A case study on journalism in a 'disappearing nation'. Unpublished MCS thesis, Pacific

- Media Centre, School of Communication Studies, Auckland University of Technology. Retrieved July 30, 2013, from <http://aut.researchgateway.ac.nz/bitstream/handle/10292/4503/KorauabaT.pdf>
- Korauaba, T. (2013). Pacific climate change doco lacks 'media impact'. *Pacific Journalism Review*, 19(1), 306-307. Retrieved June 30, 2013, from <http://search.informit.com.au/documentSummary;dn=336644447736775;res=IELHSS>
- Korauaba, T. (2014). Kiribati media, science and politics: Telling the story of climate change in a 'disappearing nation'. *Pacific Journalism Monographs, No 3*. Auckland, NZ: Pacific Media Centre.
- Krøvel, R., Ytterstad, A., and Orgeret, K. S. (2012). Objectivity and advocacy in global warming journalism: Scientific knowledge, local experiences and concern among students in Nicaragua, Nepal and Bangladesh. *Asia Pacific Media Educator*, 22(1), 15-28.
- Leigh, C. (2012, July 2). Failed states index belongs to policy dustbin. *The Guardian*. Retrieved June 13, 2014, from www.theguardian.com/global-development/poverty-matters/2012/jul/02/failed-states-index-policy-dustbin
- Meissner, K., Lippman, T., and Sen Gupta, A. (2012). Large-scale stress factors affecting coral reefs: open ocean sea surface temperature and surface seawater aragonite saturation over the next 400 years. *Coral Reefs*, 31(2), 309-319. Retrieved June 30, 2013, from <http://link.springer.com/article/10.1007/s00338-011-0866-8>
- O'Brien, X. (2013, March 17). Failed states [Review]. Retrieved June 30, 2013, from <http://xavierobrien.wordpress.com/tag/failed-states/>
- Peters, C., and Broersma, M. (2013). *Rethinking journalism: Trust and participation in a transformed news landscape*. London, UK: Routledge.
- Ratuva, S. (2013). Reconceptualising the nexus between 'fragility' and (in)securitisation: A critical appraisal of the Pacific situation. Unpublished paper presented at the 'Oceans and nations: Failed states and the environment in the Pacific' symposium at the University of the South Pacific.
- Ratuva, S. (2014). 'Failed' or resilient subaltern communities? Pacific indigenous social protection systems in a neoliberal world. *Pacific Journalism Review*, 20(2), 39-57.
- Roberts, D. (2013, August 21). Energy, politics and more: Climate change and 'environmental journalism'. Retrieved August 14, 2014 from <http://grist.org/climate-energy/climate-change-and-environmental-journalism/>
- Robie, D. (2010). Iconic media environmental images of Oceania: Challenging corporate news for solutions. In M. Prasad (Ed.), *Dreadlocks: Oceans, Islands and Skies* (pp. 22-47). Proceedings of the 'Oceanic Conference on Creativity and Climate Change' conference. Suva, Fiji: University of the South Pacific.
- Robie, D. (2014). Climate change and nuclear refugees. In *Don't spoil my beautiful face: Media, mayhem and human rights in the Pacific* (pp. 245-258). Auckland, NZ: Little Island Press.
- Romano, A. (2010). *International journalism and democracy: Civil engagement models from around the world*. London, UK: Routledge.
- Sandman, P. (1987). Risk communication: Facing public outrage. *EPA Journal*, 13(9), 21-22.

'FAILED' STATES AND THE ENVIRONMENT

- Sherwell, P., and Garcia, H. (2009, November 7). Ignore the movie: 2012 will not be the end of the world, say Mayans. *The Telegraph*. Retrieved June 30, 2013, from www.telegraph.co.uk/news/worldnews/northamerica/usa/6519923/Ignore-the-movie-2012-will-not-be-the-end-of-world-say-Mayans.html
- SIDS take lead at UN climate change summit (2014, September 24). Radio New Zealand International. Retrieved September 25, 2014, from www.radionz.co.nz/international/pacific-news/255424/sids-take-lead-at-un-climate-change-summit
- SPREP (South Pacific Regional Environment Programme). (2011). Pacific Islands Framework for Action on Climate Change 2006-2015 [2nd Edition Retrieved October 7, 2014, from www.sprep.org/attachments/Publications/PIFACC-ref.pdf
- The island president* (2011). Directed by Jon Shenk [Documentary]. theislandpresident.com
- The Pacific's first failed state? (2003, February 13). *The Economist*. Retrieved October 7, 2014, from www.economist.com/node/1580220
- There once was an island: Te henua e nnoho* (2010). Directed by Briar March [Documentary]. www.thereoncewasanisland.com
- Tong explains Kiribati land deal in Fiji (2014, October 2). Radio New Zealand International. Retrieved October 7, 2014, from www.radionz.co.nz/international/pacific-news/255933/tong-explains-kiribati-land-deal-in-fiji
- Vasquez, F. (2009, April 29). *The day after tomorrow, Rotten Tomatoes*. Retrieved June 30, 2013, from www.rottentomatoes.com/m/day_after_tomorrow/
- Wallis, J. (2012). The Pacific: From 'arc of instability' to 'arc of responsibility' and then to 'arc of opportunity'? *Security Challenges*, 8(4), 1-12. Retrieved June 13, 2013, from www.securitychallenges.org.au/ArticlePages/vol8no4Wallis.html
- Ward, B. (2008). A higher standard than 'balance' in journalism on climate change science. *Climatic Change*, 86, 13-17. doi 10.1007/s10584-007-93118-4
- Ware, A., and Van Riet, R. (2013). The climate-nuclear nexus. *Pacific Ecologist*, 22, Summer, 35-37. Retrieved June 13, 2013, from www.pacificecologist.org/archive/22/pe22-climate-nuclear-nexus.pdf
- World Bank/International Bank for Reconstruction and Development (2013, June). *Turn down the heat: Climate extremes, regional impacts, and the case for resilience*. Retrieved June 28, 2013, from http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centigrade_warmer_world_must_be_avoided.pdf
- Zurbrycki, T. (2011). *The hungry tide* [Documentary]. thehungrytide.com.au

Dr David Robie is professor of journalism and director of the Pacific Media Centre at Auckland University of Technology. An earlier version of the paper was delivered at the 'Oceans and Nations: "Failed" states and the Environment in the Pacific' conference at the University of the South Pacific in July 2013. The author wishes to thank Dr Lee Duffield and Taberannang Korauaba for their contribution to this article.
david.robie@aut.ac.nz