

# A hot topic? Climate change mitigation policies, politics, and the media in Australia

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## Abstract

*This paper explores some issues that have been important in the climate change mitigation debate in Australia. Media coverage reflects the prominence and nature of the debate and has risen almost exponentially since 2003. Clearly it has become a political issue. Media coverage is the lens through which the public view the debate, and whilst public opinion is not the only factor affecting policy formulation, in Australia it can be critical as voting is mandatory. A pilot study was used to explore perceptions of the nature of policy, the climate change debate, and its portrayal in the media, through the interview of key opinion leaders. Results indicate that opinion leaders believe that mitigation policy in Australia has been slow to progress due to media promotion of the uncertainty associated with climate change science, the weakness of leadership, and the political cost of unpalatable policy, even though effective policies at both national and international levels are needed.*

**Keywords:** Climate change, Australia, media coverage, perception, mitigation policy

## Introduction

Policy development for the mitigation of greenhouse gases in Australia, and its implementation, have travelled a difficult road since the adoption of the first UN climate change convention at Rio in 1992. Australia's approach, particularly under the Howard government, was focused on short term national interests as evidenced by the fact that it argued for an increase in its greenhouse gas target at COP3 (McManus, 2000). Against a background of increasing debate in the Australian media about whether climate change was real and what should be done about it, and the release of scientific studies and reports, the Government's approach began to contrast with Australian public opinion, and by 2006, climate change was considered an important issue (Newspoll, 2008). Ultimately the issue was influential in the defeat of the Howard government in the federal election of 2007 (Rootes, 2008).

These observations suggest a complex relationship between scientific knowledge, public opinion, and political action. The aim of this study was to investigate these relationships as part of a broader study into the drivers for climate change mitigation policy change in Australia, with the ultimate objective (in further planned research) of analysing what likely goals climate change mitigation policy can achieve. Exploration of perception is important as politicians rely on their perception of public opinion when formulating policy.

Previous studies suggest a strong role played by media coverage in influencing public opinion, which in turn influences political actors. Apparently, the general public sees the climate change debate through the 'media lens', that is, they see what the media choose to portray and as such the media seems to play a major role in the formation of public opinion. Whilst this is not the only factor influencing public opinion, investigation of other factors lies outside the scope of this project. Carvalho (2010) reported that research has shown the media to be the main source of information and the main factor shaping people's awareness of climate change. In Australia this is particularly relevant given the history of the print media, particularly its powerful role in determining the agenda and the issues that are open to debate (Cunningham and Turner, 1997). Also of importance is its close, sometimes almost symbiotic, relationship with Australian politics. The assumption made here is that examination of the perceptions of media coverage by opinion leaders can help clarify some of the assumptions involved in the debate about the reality of climate change, and what to do about it, and some of the factors that may contribute to the strength of political will for policy action to reduce greenhouse gas emissions. This study investigated the interpretations of 'opinion leaders', people active and influential in policy making in Australia, on their understanding of interactions and factors influencing climate change policy, including their own view of public opinion.

This paper briefly outlines the relevant existing academic literature on the media coverage of climate change, its interface with public opinion on risk perception and uncertainty, and the linkage between local and global climate change policy issues. It presents a broad framework for the research

design, and describes the case study used to investigate aspects of the perception of climate change mitigation policies, and of media coverage of climate change issues, in the Australian context. This is the only known case study of the kind in Australia. Some of the main themes which emerged from the study are presented and their relevance to climate change mitigation policy in Australia discussed. Finally, some possible future directions for research in this area are given.

## Themes in the Literature

There is a wealth of literature relevant to this multi-disciplinary study, but little which is based on empirical research in Australia. As well as media studies, there are other relevant bodies of literature, for example, that of the science-policy interface, but the focus here is on media, policy, and politics. Boykoff has written extensively on media coverage of climate change, with a particular focus on the US and the UK (Boykoff 2007a, 2007b; Boykoff and Boykoff, 2004a, 2004b, 2007; Boykoff and Roberts, 2007). Other researchers to examine UK climate change media coverage include Carvalho and Burgess (2005). McManus (2000), with an Australian focus, has examined the extent of Australian media coverage of the Conferences of the Parties to the Convention (COP). Entman (2007) and others have examined the framing bias of the media (Chong and Druckman, 2007; D'Angelo, 2002). Much earlier, Downs (1972) looked at the 'issue-attention cycle' which governs the length of time a particular topic will feature in the media and thus the effect on political pressure for change.

Some researchers have considered the issue of increasing education at the grass roots level as a way to mitigate climate change. There are studies on the effectiveness of the communication of climate change issues (Plummer et. al., 2005). Sheppard (2005) has looked at the effect that landscape visualisation and climate change has had on people's perceptions, and how it may encourage changes in behaviour through accelerated social learning. The effect of media coverage on voter behaviour has been examined by Druckman (2004; 2005). Kinder (1998), furthermore, has studied the effect of the media on public opinion in the US, as have Krosnick et. al. (2000). Research by Raby (2004) has focused on the interaction between political will and public opinion with respect to climate change mitigation policies in the US. There is, moreover, an extensive literature concerned with the examination of opinion poll trends. Nisbet and Myers (2007), for example, have looked at the trends in climate change opinion polls in the US over a period of twenty years.

Smith (2005) explored the role of British broadcast news media decision makers in shaping public understanding and

debate of climate change risks, finding a disjuncture between ways of talking about uncertainty within policy and science discourse, and media constructions of truth, objectivity and balance. Other researchers who have adopted a risk approach are Leiserowitz (2007), who explored American risk perceptions with respect to climate change communication, and Risbey (2008). Amidst claims that alarmist reporting desensitises people to the issue, Risbey's examination of media coverage from an Australian perspective concluded that it was not unduly alarmist. Whitmarsh (2008) has studied the role of personal experience as a factor increasing risk perception with respect to climate change.

Risk perception also features in research concerning 'tipping points', defined as points in time beyond which we cannot go back and make things the way they were before the tipping point was reached. The idea of a social tipping point is expounded by Moser and Dilling (2007), and recent work by Risbey (2008) has examined public perception of climate change tipping points. These studies complement the substantial body of literature about the physical tipping points, see Hansen (2008), for example.

The question of whether people believe the conclusions reached by climate scientists is addressed by several authors, including Rogers and O'Connor (2007) who have written about public opinion and whether the British public believe that climate change is real. There has also been research into the role of conservative think-tanks in promoting environmental scepticism from a US point of view (Jacques et. al., 2008).

Tjernstrom and Tietenberg (2008) have examined the connections among attitudes toward local and global events, in the context of their research regarding the formulation of national climate change policies. Furthermore, there is a whole new area of research called public diplomacy, which has been described by Gilboa (2008) as "the ideological battle for the hearts and minds of people around the world" or a way of influencing public opinion in a broader geographical sense than has previously been practised. Downie and Kaiser (2002) have done work on the influence of information accessible on the web on public awareness of climate change issues.

Research at the local level has tended to focus on issues of sustainability, for example, Bizikova et al. (2007). At the other end of the scale, consideration has been given to global communication and foreign policy (Gilboa, 2002).

This brief survey of research on the relation of media to public opinion is intended to provide some indication of the breadth of the relevant literature. The contribution of the study described here to the existing literature is addressed in the discussion section below.

## Research Design

There are, of course, many factors which influence policy development, not just public opinion influenced by the media; interest groups, political expediency, and international pressures, to name a few. Policy development with respect to climate change mitigation is no exception. In Australia interest groups such as the coal lobby and the Australian Conservation Foundation are influential. And because Australia, up until the end of 2007, was one of just two countries still to ratify the Kyoto Protocol, it was subjected to international pressures to fulfil its role as a good international citizen.<sup>3</sup>

In Australia voting is mandatory at local, state, and federal levels, and consequently public opinion is important for political will in the formulation of politically difficult climate change mitigation policies in Australia, but there are factors which lie beneath the web of interrelationships shown in Figure 1 below. Perceived threat levels, for example, can influence public opinion and therefore political will.

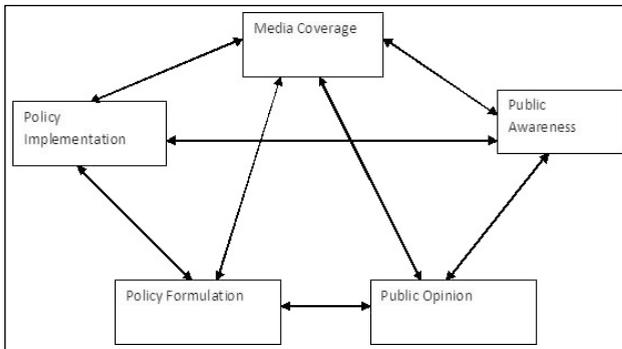


Figure 1. A Model of Interactions

This research seeks to identify and examine some of these underlying factors through a case study of the views of opinion leaders in relation to media influences and climate change mitigation policy progress, in one particular location, Townsville. It is anticipated that further work will investigate the connections between opinions held by the public and local, state, national, and global policy formulation for climate change mitigation. Climate change policy is enacted at all levels of government in Australia and intertwined at both domestic and foreign levels. Australia therefore lends itself well to the examination of local to global interconnections between opinions of the public and policies at different levels of governments.

From preliminary research concerning the level of media coverage of climate change issues in Australia, climate change appears to have become important, at least to the media, sometime in 2003. Figure 2 shows that the level of print media coverage in the major Australian newspapers

sharply increased from this time. Clearly, the media identified climate change as an issue of interest to the Australian public. The lower line (Series2) in Figure 2 indicates the amount of media coverage relating to climate change that also included keywords such as threat, peril and so on. So, not only is media coverage of climate change issues increasing, but so is coverage that imparts a sense of urgency.

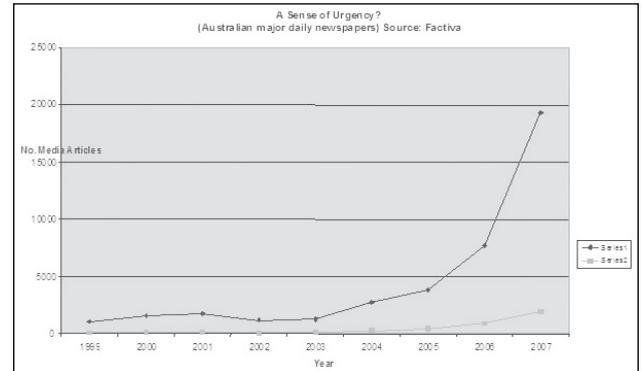


Figure 2. Australian media coverage of climate change issues 1999-2007.

The Australian print media has been described as “one of the most effective instruments of influence within a democracy”.<sup>4</sup> But not only can it influence the public, in Australia it has also been in a particularly powerful position with regard to its potential to influence the actions of politicians. Australian print media ownership has been in the hands of only a very few. Former Prime Minister Malcolm Fraser expressed his concerns when he said:

*“I think the pressures were probably all in conversations and lobbying and the sorts of activities that politicians are all very much aware of. Because it exists, because we live in this kind of world and it cannot be stopped, if that pressure is coming from one or two extraordinarily dominant media owners it can get very difficult.”<sup>5</sup>*

Today the Australian print media is dominated by just two media companies, Australian Consolidated Press and News Limited. This is especially so for print media in the major metropolitan and national arenas. Across Australia there is one national newspaper, a number of state based newspapers, and an array of local level newspapers that traditionally have been independent but increasingly are owned by, or affiliated with, one of the two main media companies. Australian media coverage has been described as “generally competent and occasionally very good indeed” (Salter, 2007). Nonetheless, there are still concerns about such a high concentration of ownership.

*“In Australia, the government is a wholly-owned subsidiary of the News Corporation”<sup>6</sup>*

However, this is balanced somewhat by the fact that the print media industry is subject to the Trade Practices and Broadcasting Acts, and Federal Parliament has the power to regulate print media corporations (Report from the House of Representatives Select Committee on the Print Media, 1992).

### The case study

This study investigates the perception of climate change issues, which were becoming important to the public in Australia from 2003 through the interview of ‘opinion leaders’ rather than seeking the views of the wider general public. The reason for this choice is that ‘opinion leaders’ are highly influential in policy development and may be vocal in the media, and hence the identification of issues which are important to them, their understanding of climate change, and their perception of the urgency of action to mitigate greenhouse gas emissions, may be significant factors in understanding the development of climate change policy in Australia. Identified opinion leaders are considered active players whose interpretations of the interactions and factors are helpful in understanding why Australian climate policy progress has been slow. Their perceptions as to which climate change issues have been prominent in the media allow us a glimpse as to how the media has been influencing public opinion.

The interviewees were found to be familiar with climate change mitigation policies in Australia over the past ten years. They included politicians, policy makers at a senior level, journalists (including editors), academics, and activists, and were selected across three levels of scale — local, state, and federal/national. So, actors from each of the areas in Figure 1 were represented in the sample.

Table 1: Interviewees<sup>7</sup>

Category	Number of people	Level
Policy makers	12	4 local, 3 state, 5 national
Journalists	4	3 local, 1 state
Activists	5	4 local, 1 state
Politicians	4	3 local, 1 national
Academics	2	1 local, 1 national

The first interviewees were identified through their prominence in the media, or because the media had identified them as influential. Subsequent interviewees were chosen on recommendation by the first round interviewees, in accordance with the snowballing technique as outlined by Layder (1998). The sample was a diverse one, though not statistically randomised. For the purpose of analysis the interviewees

were placed into categories, but categorisation was difficult as a number had worked in more than one of these areas.

Interviews were mainly conducted in December 2008 and January 2009, and the last interview was carried out in April 2009. Interviews lasted on average for ninety minutes and were conducted under the guidelines of the human ethics committee of the Australian National University. Interviewees were sent the questions no less than three days prior to the scheduled interview time (see Table 2). The interviews were semi-structured around the following open style questions, in order to allow interviewees to respond with points which they felt to be important. Interviews were recorded and transcribed for analysis.

Table 2. Interview Questions

Questions
1 Could you please explain your understanding of the term ‘climate change’?
2 Could you please describe how you have seen the evolution of policies relevant to climate change, over the past ten years?
3 What do you see as the significant shifts in climate change policy in the last ten years?
4 In your personal view, what were the main reasons for these policy shifts?
5 Have there been any interest groups which have had a significant impact on these policy changes?
6 What role do you think the media has played in increasing awareness and in influencing policy change?
7 How do you think decisions are made with respect to the reporting of particular news stories on climate change?
8 What are some other issues that you feel are linked to discussions of climate change in the media?
9 In the way issues are reported in the media, how important is the interaction between policy action on climate change and economic growth, and the policy choices being debated now?
10 Has this relationship changed over the past few years?
11 In the way issues are reported in the media, what do you think influences the levels of coverage of local, regional, state, national, and international issues?
12 Are there any other issues or observations you would like to make, that haven’t been covered?
13 Are there other people who you think could be useful for me to interview? If so, would you like to check with them before identifying them?

The questions focused on the interviewee’s understanding of climate change, their perceptions of the evolution of climate policy in Australia over the past ten years and the influence of interest groups, their perceptions of the role that the media has played in raising public awareness and in influencing policy development, and the factors that may be influencing the type and level of media coverage of climate change issues.

Analysis of interview data was qualitative. In this particular case study analysis by category proved difficult. An attempt was made to do this for question 4, however, the re-

sponses were not found to line up by category. This is an interesting finding and could be due to the particular nature of this case study's interviewees, many of whom had held more than one professional role across the categories. For example, one interviewee had been a political advisor, policy maker, and was now an academic. One of the activists also formulates policy. One of the journalists had also worked in government policy. These multiple roles may have influenced the results as interviewee understanding was coming from multiple perspectives. Hence, the focus of the analysis was on the themes emerging from the interview data. Themes were identified by their frequency of occurrence and by the strength of expression in the case of minority views.

Most of the subjects of the interviews were from, or had an association with, Townsville, a regional city of 197,000 people (ABS, 2006) in the state of Queensland; this city assumes an importance disproportionate to its size. Climate change issues play a complex role in this area, and makes this an interesting location for the kind of study undertaken. While Townsville serves as a major transport hub for the coal which is mined inland and sent overseas through local ports, it is also a center for international tourism. The Great Barrier Reef, a world heritage icon, is located off the coast of Townsville and the location of James Cook University with its world renowned marine research facility and strong environmental research focus, ensures issues of relevance are featured not only in the local media, but also in the state, national, and even international media at times. The health of the Reef, at risk from climate change, features prominently.

This means that Townsville gets a great deal of attention from politicians. Jobs and export earnings in the mining and tourism industries are important, but there is also another political factor at play here.<sup>8</sup> Townsville is considered a marginal seat which means that in an election it may go either to the Labor Party (left of centre) or the Liberal/Nationals (right of centre). Politicians put a great deal of effort into promoting their election promises in this region in an effort to ensure their party gets the majority of the votes. In the last federal election in November 2007 it was considered a pivotal seat. For example, the day after the Premier of Queensland, Anna Bligh, announced the spring 2009 state election, she was in Townsville to commence her campaign (Queensland Labor Party, 2009) — even though only 5% of the population of Queensland are located in this region.

Townsville residents are sensitive to media reporting of severe weather events such as Hurricane Katrina as this area is prone to cyclones. The most recent one in 2006 wiped out the entire banana crop (Australian Broadcasting Commission, 2006).

Media coverage across the region is provided by the Townsville Bulletin, as well as state and national media. The

Townsville Bulletin was established in 1881 (The Townsville Bulletin, 2009) and until recently was independent of the main media companies in Australia. It is now owned by News Limited.

## Results

The interviews revealed a number of key themes. These can be deemed significant to the 'opinion leaders,' as they emerged from open questions and were recurrent across the majority of interviews. They are summarised in Table 3 below.

Table 3. Table of themes revealed by interviews.

Themes	
1	Weather vs climate
2	The acceptance of climate change as real
3	Personal experience
4	Sensationalism in the media
5	The role of the sceptics
6	Personal opinions of journalists
7	Culture
8	The use of probabilities in scientific reporting
9	Leadership
10	Severe climatic events
11.	Stagnation of climate change policy

### 1. Weather vs climate

Almost all of the interviewees articulated a clear distinction between climate change and climate variability/variability in the weather. They were unconvinced, however that the general public were able to make the same distinction. As one interviewee put it:

*"Climate variability throws everybody out in terms of their ability to interpret climate change on a personal level and casts a shadow of doubt across the science". (Activist #2)*

### 2. The acceptance of climate change as real

All the 'opinion leaders' perceived there to be a high degree of uncertainty in the Australian general public on the issue of whether climate change is real. This was in contrast to their own views. In almost all cases they indicated they were convinced that climate change is real. Some perceived the debate to have moved beyond "Is climate change real?" to "What should we do about it?". Most interviewees had not read the fourth IPCC report, despite appreciating that it represented the consensus opinion of the world's experts in climate science.

### 3. Personal experience

All the interviewees thought that personal experience of

climate events was important in understanding climate change. One interviewee recounted his experience in conducting political focus groups prior to the November 2007 federal election. According to the interviewee the groups identified climate change as an issue, and this appeared to be based on their personal experiences, including the ramifications of the 2005-06 "drought." The focus group participants reportedly said:

*"We have heard the scientists talk about it. Here is an example of it actually happening." (Policy #10)*

#### 4. Sensationalism in the media

According to the media interviewees, coverage of any issue, including climate change, is driven by considerations of whether there is conflict/sensationalism involved, as this will sell more papers, although one journalist also commented:

*"Sometimes we will pursue things that other news outlets won't touch because we think they are important. It mightn't be obvious that the readership wants to know about it but every now and then we think, well, they should know about this." (Journalist #1)*

Generally stories were selected based on their news value, that is, what the media people perceived that readers would want and is topical. They identified what the readers would want through focus groups.

All the interviewees agreed that stories ran because they would help sell newspapers, but identified the Australian Broadcasting Commission and SBS (due to its strong international news focus) as providing reporting with the intention of imparting information. Several interviewees lamented the lack of investigative reporting in Australia. One interviewee felt that because there was very little information given there was a lot of fear generated as a result.

#### 5. The role of the sceptics

All the interviewees felt that the print media writes stories that will result in increased sales of their newspapers. So in seeking a point of conflict, space is given to climate change sceptics. Most interviewees, other than the journalists, were largely concerned that too much time was being given by the media to climate change sceptics to air their viewpoint.

*"Should sceptics get equal time? Well we don't give flat earthers equal time so should we give equal time for rubbish?" (Policy #9)*

#### 6. Personal opinion of journalists

The personal opinions of journalists may be important.

One journalist saw scientific uncertainty as allowing for a broader interpretation of the science than is warranted. In their writing then the level of uncertainty surrounding climate change science may be magnified.

*"Gathering scientific data you can pretty much make it say whatever you want it to say." (Journalist #2)*

#### 7. Culture

One interviewee felt that our culture of acceptance had changed, that people no longer believed just because an expert said so. People had become more sceptical of things presented to them as true. Another aspect of culture revealed by this study was the 'opinion leaders' perceptions of the attitudes of the majority of Townsville residents towards climate change mitigation.

*"Most people out there in the suburbs, you know how they perceive their environmental commitment? Putting the recycling bin out once a fortnight." (Politician #3)*

#### 8. Scientific reporting

Most of interviewees who commented on the ways that climate change-related science was presented to the public were critical of it.

*"The trouble with scientists is that they'll never say anything is 100%.....the public can't work out what a small doubt is." (Activist #4)*

#### 9. Leadership

Interviewees were almost unanimous in commenting that the media is a follower, not a leader, in the climate change debate within the media. Academia and politicians were thought to be playing a leadership role. One interviewee commented on the change in the way scientific papers on climate change are released now:

*"Now there is almost a press release with fanfare... there is none of this lag factor where it might take a couple of years to be found out." (Policy #9)*

At another level, leadership by important U.S. figures such as Barack Obama, Al Gore, and Arnold Schwarzenegger was felt to be important in driving the progress of climate change policy. There was the perception of a sense of hope with the incoming Obama Administration in the US.

One interviewee was particularly scathing about the lack of objectivity shown by the editor of a local newspaper. The editorial decisions made with respect to this local newspaper in a small town within the Burdekin Dry Tropics region, apparently revolved around the close relationship between the editor and the mayor.

*"It is the very (town) Dependent because it is very dependent on what the mayor thinks." (Activist #2)*

### 10. Severe climatic events

Most interviewees perceived media coverage of severe climatic events to be linked to climate change. This contrasts with previous research done by the author.<sup>9</sup>

### 11. Stagnation of climate change policy

Most interviewees agreed that the last ten years in Australia has seen little in the evolution of policy on climate change. A number of interviewees thought Australia's ratification of the Kyoto Protocol represented a significant shift in climate change mitigation policy. They identified several factors which may have been responsible for the stagnation, the most prominent one of which was the alignment between US President Bush and Australian Prime Minister Howard, who was opposed to acting on outside pressure, and was sceptical of the reality of climate change.

One interviewee who had worked as a senior adviser in the federal government, referring to the period prior to the election of the Rudd government in November 2007, said:

*"The last ten years have been marked by an incredible lack of vision and foresight amongst our policy makers." (Policy #10)*

Most interviewees identified the screening of "An Inconvenient Truth" as a social turning point in Australia, commenting that, as a result, the consequences of not acting became more apparent to the general public.

## Discussion

On the basis of the views of these 'opinion leaders' a number of interesting issues offer themselves for further research consideration. According to the views of these interviewees, uncertainty about climate change is being created in the minds of the public through particular media interventions, which is a perception that agrees with Boykoff and Boykoff (2004b) conclusions in their US study. Interviewees' responses indicated that, in their opinion, the general public was likely unsure as to whether climate change was real because they (the public) did not distinguish between climate change and climate or weather variability. Furthermore, interviewees felt that personal experience was significant in forming a belief in climate change as a reality. In this way, their perception agrees with studies mentioned by Whitmarsh (2008), which found direct experience of severe weather to be a major influence on risk perception. (Whitmarsh's own study of UK flood victims, however, indicated that they did not have a greater understanding of or concern about climate

change. The role of the media in communicating climate change issues may constitute a possible explanation for Whitmarsh's results.)

According to the opinion leaders, uncertainty in the minds of the general public was being furthered by the continuation of the media presenting "both sides" of the debate about whether climate change is real. Interestingly, the fourth IPCC report (2007) has had little penetration in the print media in Australia.<sup>9</sup> The public has therefore had little exposure to a highly credible source of information on the topic. This study found that even many 'opinion leaders' had not read this document, which may explain why there is little evident understanding of the nature of the IPCC and the significance of its reports. (To date, there has been no previous research into the impact of the IPCC reports on policy makers or media decision-makers. It bears further investigation.)

Importantly, what the public believes has an effect on policy formulation. This is supported by Tjernstrom and Tietenberg (2008) who conducted a US study to investigate the effect of public attitude on national climate change policy. Consequently, the suggestion by the opinion leaders that uncertainty concerning climate change is being created in the minds of the Australian public by the media, is of interest.

The opinion leaders' views on the cultural aspects also hint at an explanation for why the general public remains uncertain about the reality of climate change. According to their views, people don't just accept what they are told, they display what we are happy to call "a healthy scepticism". Many interviewees moreover lamented the lack of investigative reporting in the Australian media today.

On the whole, 'opinion leaders' were frustrated by the stagnation of climate change mitigation policy under the Howard government. This is particularly significant given the history of Queensland politics with its strong developmentalist attitude and the substantial and politically sensitive mining and tourism industries. (During the recent global financial crisis the focus in Queensland politics turned once more to job protection and climate change mitigation took a back seat.)

Leadership was perceived by the 'opinion leaders' as an important factor required for progress on climate change mitigation policy. Their view agrees with Leiserowitz's (2007) findings from his US study. In Australia it may be the most important factor. Furthermore, 'opinion leaders' substantially laid the blame for the stagnation of mitigation policy on the Howard government. The most significant shift in climate change mitigation policy in the past ten years was the ratification of the Kyoto Protocol. One interviewee felt that this did not represent a policy shift, but rather was a deliberate vote-catching move deployed during the 2007 federal election by the Labor Party under Kevin Rudd. Several interviewees expressed the opinion that Prime Minister Rudd does not believe

climate change is real; however, this was disputed by one interviewee who worked closely with him during 2007.

The discussion above has highlighted issues and concerns expressed by the majority of 'opinion leaders'. However, there were some divergences. One interviewee, commenting on the understanding of the weather and climate, was concerned about over-simplification of the climate system in the media debate and thought factors such as decadal oscillations and solar effects should be presented.

## Conclusion and future directions

This study revealed that within the sample there was a disparate understanding of how the climate change debate on the reality of climate change, and what sort of actions should be taken, had been portrayed in the media and had been conducted at high levels within policy circles in Australia. Interviewees showed a range of depth of understanding of climate change, although almost all were very well informed and perceived a sense of urgency for action to mitigate greenhouse gases. This bodes well for the development of effective mitigation policy in Australia, given the influential professional roles of the interviewees. Further research concerning perceptions of the Australian media coverage of climate change is warranted.

The mandatory nature of voting in Australia lends significance to public opinion polls and these are closely watched by politicians. Interviewees believed that the uncertainty created in the minds of the public, largely as a result of media coverage of climate change mitigation issues, has been a major factor in blocking the progress of effective mitigation policy formulation through a mechanism of public opinion perception by politicians.

Further investigation of media coverage of severe climatic events to determine whether it indeed has been linked with climate change, as suggested by some interviewees, will be useful in gauging the accuracy of the interviewees' perceptions of climate change media coverage and of the likely level of public threat perception (which is an important factor driving political will). Differences between local, state, and national media coverage may be explored to address a research gap from local to global. This further research will produce a better understanding of public perception of the climate change debate in Australia and of the development of mitigation policy.

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## Endnotes

- 1 desley.speck@anu.edu.au.
- 2 Paper presented at the International Conference on Human Ecology, Manchester, UK, June 29 - July 3, 2009.
- 3 Australia ratified the Kyoto Protocol in late 2007 at Bali immediately after the election of the Rudd government to the Australian Federal Parliament.
- 4 *Cunningham and Turner* quoting Eric Beecher, a former editor of the Sydney Morning Herald. p.31.
- 5 *Cunningham and Turner* quoting the Hansard Transcript, House of Representatives Select Committee into the Print Media, 1991. p.33.
- 6 *Salter* quoting Rupert Murdoch's former Sunday Times correspondent in Washington, who wrote in the Guardian. p.xii
- 7 One of the policy makers was also an academic located in Brisbane. Two of the activists are also business people. One of the activists is also working on policy for an NGO at state level. One of the local level journalists also worked at regional and national levels. The state level journalist has also worked in policy at the state level.
- 8 Mining provides jobs for about one third of the population of the Townsville region, that is around 71,000 jobs, as does tourism activities associated with the Great Barrier Reef (ABS 2006)
- 9 Analysis of media coverage, author, unpublished.

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