



ESCAPING CLIMATE CHANGE
Climate Change in the Media: North & South Perspectives

Paddy Coulter and Atle Midttun (editors)

With national case contributions from:

Audrey Gadzekpo
Atle Midttun and Hilde Nordbø
Jin Wang

Report nr. 1 2009
CERES21-Creative Responses to Sustainability
www.CERES21.org

Foreword

This report is a contribution to the now growing research literature on the media coverage of climate change around the world. It is the fruit of a close collaboration between three core research teams from Ghana, Norway and China which in turn are part of the wider international group of scholars and senior researchers, Ceres 21, financed by the Norwegian Research Council.

The Ceres 21 project – Creative Responses to Sustainability - advances a comparative, multidisciplinary approach based on dialogue between the natural scientists and the researchers in the social sciences and the humanities. It also takes on board an empirical, multi-stakeholder perspective involving politicians, NGOs, religious leaders and businesses.

Ceres21 is embarked on a four-year quest to identify cultural, political and economic sources of the main problems bedevilling creative adaptation to the climate challenge in Norway, China and Ghana. The group felt that an in-depth study of media coverage of climate change in those countries would make a good departure point for their further research work into governance, business and civil society.

An analysis of national variations in the reporting of climate change not only provides insights into the nature and quality of journalism in the countries studied but also yields important information about the differing national policy frames adopted.

This is not just an academic study. It is being compiled during the time of global climate negotiations leading up to the UN conference in Copenhagen in December 2009 – a time when tensions and policy differences between countries are more apparent than agreement and international consensus on the way forward.

The disturbing finding which emerges from this media analysis is that in none of the countries studied was the climate crisis treated as more than an important secondary or tertiary level concern. And in so far as the three countries, Ghana, Norway and China, are facing up to the climate threat it is by different forms of escapism detailed below. The national press coverage studied for this report suggests that there is a way to go before climate change becomes a genuinely primary mainstream issue for policymakers and their publics.

Contributors:

Professor *Paddy Coulter* (editor) is a Fellow of Green Templeton College, Oxford University and a Senior Associate of St Antony's College as well as an Associate Fellow at the university's Environmental Change Institute (ECI).

Atle Midttun is Professor at BI Norwegian School of Management, Institute of Innovation and Economic Organisation, Director of the Centre for Corporate Responsibility, and Co-Director of the Centre for Energy and Environment.

Audrey Gadzekpo is a Senior Lecturer and Ag. Director School of Communication Studies, University of Ghana.

Hilde Nordbø is Research Assistant at BI Norwegian School of Management, the Institute of Innovation and Economic Organisation and Am. at the Centre for Corporate Responsibility.

Jin Wang is Associate Professor of sociology at the School of Government, Sun Yat-Sen University (SYSU) in Guangzhou, China.

Table of Contents

1.0 Introduction	7
1.1 Framing Climate Change	8
1.2 Our Approach.....	9
2.0 Climate Change Discourses in Ghanaian Newspapers: Sloganeering or Real Commitment?	11
2.1 Introduction.....	11
2.2 Focus and Methodology.....	12
2.3 Media in Ghana.....	12
2.4 Climate Change Content in Newspapers.....	13
2.5 Sources of Climate Change Stories.....	14
2.6 Type of Stories.....	15
2.7 Core Themes	18
2.7.1 Climate Change Causes and General Effects	19
2.7.2 Climate Change and Development Challenges	19
2.7.3 Climate Change and Shifts in Weather.....	20
2.7.4 Information about International Policy Initiatives.....	20
2.7.5 Deforestation and Desertification.....	20
2.7.6 Local Responses	21
2.7.7 Government Policies.....	21
2.8 Reflections and Conclusions.....	22
2.9 References.....	25
3.0 Climate Change in Norwegian Newspapers: Global Action and Domestic Laisser Faire	27
3.1 Introduction.....	27
3.2 Focus and Methodology.....	28
3.3 The Media in Norway	28
3.4 Climate Change Content in Newspapers.....	28
3.5 Sources.....	29
3.6 Type of Stories.....	30
3.7 Core Themes	31
3.7.1 Lively Debate over Climate Fundamentals	31
3.7.2 Climate Change and the Arctic.....	32
3.7.3 Climate Change and Concerns for the Developing World	33
3.7.4 Western Policy Developments.....	34
3.7.5 Climate Challenges to Business.....	35
3.7.6 Climate Change Lifestyle Issues and Health Effects.....	35
3.7.7 Government Policy	36
3.7.8 Concern Regarding Natural Resources.....	37
3.8 Reflections and Conclusions.....	38
3.9 References.....	40
4.0 Chinese Newspapers Coverage of Climate Change: The Harmonious Tone set by Government...	41
4.1 Introduction.....	41
4.2 Focus and Methodology.....	42
4.3 The Media in China.....	42
4.4 Climate Change Content in Newspapers.....	43
4.5 Sources.....	44
4.6 Type of Stories.....	44
4.7 Core Themes	45
4.7.1 Climate Change and Chinese International Relations.....	45
4.7.2 Global warming, Climate Change and Natural Disasters	46
4.7.3 Energy Conservation and Emission Reduction	47
4.7.4 Climate Change and Weather Forecasts.....	48
4.8 Reflections and Conclusions.....	49
4.8.1 The Chinese Government's Position on Climate Change.....	49
4.8.2 Chinese Public's Perception and Attitude toward Climate Change.....	51
4.9 References.....	54

5.0 Comparing Climate Change Coverage: Reflections and Conclusions 55
5.1 National Media Variations 55
5.2 National Policy Variations 59
5.3 Three Forms of Escapism 60
6.0 Literature 61

1.0 Introduction

By the end of the first decade of this millennium the climate change and global warming issue has advanced significantly up the global agenda (see figure 1.1 and 1.2). Following a decade of extensive scientific debate, the Intergovernmental Panel on Climate Change (IPCC) has managed to establish a broad scientific consensus around global warming as well as the grave consequences for long term human survival and the need for policy efforts to deal with it. Yet this consensus still needs to be diffused to, and framed at, national and local levels, where the main capacity for action lies. Of particular concern is the ability to forge compatible understandings and strategies across countries and national borders with cultural and developmental diversity as a basis for common global solutions.

Figure 1.1¹
Climate Change in Global Press

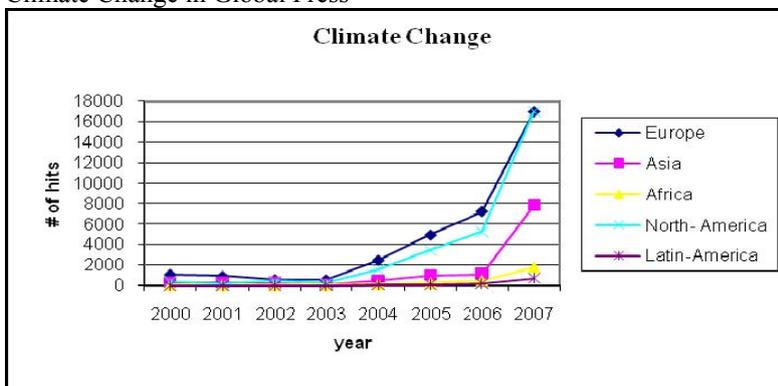
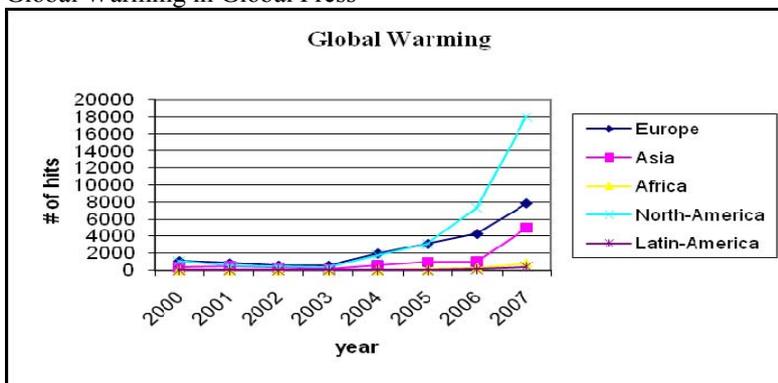


Figure 1.2²
Global Warming in Global Press



This report studies climate change/global warming across three countries: Norway, China and Ghana: Norway - representing the rich West, China – representing the rapidly growing East and Ghana – representing the poorer South. Our focus is on how the climate challenge and global warming is framed (interpreted and conceptualized and animated) in each of the three

¹ Factiva search March 2009. Search term Climate Change, from 01.01.2000 to 31.12.2007, Headline and lead paragraph, Source: English language newspapers only

² Factiva search March 2009. Search term Global Warming, from 01.01.2000 to 31.12.2007, Headline and lead paragraph, Source: English language newspapers only

locations; and to what extent the three framings fit together in a concerted global climate policy.

We focus on national interpretation of the climate debate primarily through the press as our empirical lens. The choice of a press review as an entry point to the climate debate rests on the view of the press as a major framer of public debate and conveyor of influential framing by other actors. Yet we are also aware that the media framing has built-in biases set by routines, norms and attitudes of the press itself. We therefore also discuss the role of media in meeting the challenge of climate change.

1.1 Framing Climate Change

By “framing”, which lies at the core of our approach, we refer to the social construction of a phenomenon by mass media, recognising that journalists do not only convey “objective” news stories, but also establish interpretative schemes in communication with their stakeholders within which those stories acquire meaning. As noted by Fairhurst and Star (1996), this includes metaphors, stories, traditions, slogans and artifacts associated with the core scientific information, which allows translation of climate change into concrete and relevant everyday experience. Framing of climate change is, in other words, a translation of results from science into stories that move hearts and minds.

Frames can limit debate by setting the vocabulary and metaphors through which participants can comprehend and discuss an issue. They form a part not just of political discourse, but of cognition. The vocabulary and metaphors used to “package” climate change may, therefore be highly influential in guiding public opinion. As defined by Entman (2003) “to frame is to select some aspects of a perceived reality and make them more salient ...in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described.”

Framing as an analytical concept goes back to the work of Erving Goffman, particularly to his 1974 book, *Frame analysis: An essay on the organization of experience*. Goffman used the idea of frames to label "schemata of interpretation" that allow individuals or groups "to locate, perceive, identify, and label" events and occurrences, thus rendering meaning, organizing experiences, and guiding actions (Goffman 1974).

As framing is critical for public engagement, it is a core factor in diffusion of climate awareness and potential climate action. With an analogy to technological innovation, the understanding of climate change - like technology – will have to go through several stages of maturity, as it spreads from early adopters to mainstream consumers (Foster, 1986; Sahal, 1981; Utterback, 1994). As the climate change issue moves from core national science communities to specialised climate policy communities and decision-making elites, before being diffused to the public at large in various regions, the framing will have to adapt and take on board new features and images relevant to the new publics (Rogers; 1996).

Obviously ecological realities, political and socio-economic characteristics and cultural orientations will vary extensively between Africa, Southern Asia and Northern Europe, leading us to expect similar variation in images and narratives.

A core problem reported in the literature on media and climate change, with respect to transforming climate science into compelling stories, lies in its systemic nature. Climate models give predictions with relatively high certainty at an aggregate level, but with much lower capacity to predict specific local outcomes. However, as pointed out by Spears (2005) it is the compelling stories of specific localised events that have the potential to move local publics to engage. This sometimes leads media to neglect the issue if climate risk cannot be translated into concrete realities. But it may also lead to exaggeration of climate change effects by fully attributing all kinds of natural catastrophes to global warming and thereby creating a good journalistic narrative (Smith 2005). As pointed out by Palfreman (2006) among many others, journalists are storytellers, they need characters, settings and conflict. Journalists do this, because it is the emphasis on human-interest narratives that also catches the interest of the reader. This raises the difficult task of finding a balanced, yet dramatizable representation of climate change effects. The further beyond the specialised climate-science elites one wants to diffuse the climate challenge, the more dependent it will be on good storytelling and translation into vernacular imagery. Yet the more difficult will it be to keep the story in line with its scientific basis and to secure the frame alignment needed for consistent policy development. As pointed out by Snow and Benford (1988), frame-alignment is an important element in social mobilization. In order to mobilise strong policy initiatives, they argue that individual frames need to become congruently and complementarily linked.

Several media analysts point out how media and public opinion concentrate on novelty, personalisation and dramatization (Weingart et al 2000; Boykoff & Boykoff 2007). The novelty criterion implies that the media must have new input to continue covering an issue, and that the climate change, therefore, to remain high on the media-agenda must provide new exciting features over time (DiPeso, 2006; Weingart et al; Carvalho, 2007, Good 2008). However, as Boykoff & Boykoff point out, these norms lead to a bias towards “episodic framing” of news, rather than “thematic framing” whereby stories are situated in a larger thematic context.

A strong inherent norm of balance implies that journalists are systematically trained to get different sides of the story and will systematically be searching for contrarian views. Several scholars including (DiPeso 2006) point out that this principle has provided ample space for climate sceptics to promote their views, irrespective of their weak position in the academic debate. In addition there are the drama-effects of the contrarian position that makes a basis for livelier stories about climate change (DiPeso, 2006; Weingart et al; Carvalho, 2007)

1.2 Our Approach

To explore further the diversity of international framing of climate change and the scope for common climate policy orientations, we have examined how the above challenges play out in a comparative study of the extent and nature of national press coverage of climate change and global warming issues in Ghana, Norway and China.

After parameters were agreed in a series of international workshops, the research was carried out by in-country teams from the University of Ghana School of Communication Studies, the

Norwegian School of Management and the Sun Yat-Sen University School of Government respectively.

Researchers in each country monitored three leading newspapers – an elite paper, a popular paper and a business paper – over six months from January to June 2008. Each research team made an initial search using the keywords Climate Change and Global Warming. Then a sample of articles containing these words was selected on a random basis for closer analysis (though articles containing a single stray mention of climate change or global warming were discarded). The desired sample size was 100 articles per country, though only 85 were achieved in the case of Ghana.

Drawing on their local knowledge of language, media and politics, the research teams were able to subject the selected press articles to critical review, identifying the major themes covered and the stakeholders cited as sources in the articles. In particular the researchers analysed how climate change was being framed by national media.

2.0 Climate Change Discourses in Ghanaian Newspapers: Sloganeering or Real Commitment?

Audrey Gadzekpo

2.1 Introduction

On the surface Ghana professes a commitment to addressing the environment and has ratified international conventions such as the Framework Convention on Climate Change, the Kyoto Protocol to the Framework Convention on Climate Change, and the Convention on Biological Diversity. In the last two decades especially, the country has also produced several strategy documents to address its environmental challenges, including the National Environmental Action Plan (1990-2000), the Forestry and Wildlife Policy and the Forestry Development Master Plan (1996-2000).

Political endorsement for such strategies is captured in a presidential vision, boldly displayed in the Environment Ministry, stating the following:

Our forests, our trees, our rivers and lakes are not commodities we can abuse. We do not own the land; we hold it in trust for generations yet unborn. We inherited at our birth, a beautiful land, blessed with thick forests, precious minerals and varied animals. We have a right to make use of these and other natural gifts to enhance the quality of our lives.

But we do not have the right to degrade the environment, we do not have the right to turn our once forest lands into desert just because we want to sell more timber. Nor do we have the right to denude our lands or seas or rivers of the animals and fish indiscriminately. Let us learn to take care of our environment. We cannot claim to love our land, when in the pursuit of extracting precious minerals, we leave the land polluted and poisoned. We cannot litter, we cannot leave our surroundings dirty and call ourselves patriots.

More recently, in August 2008, Ghana's ostensible interest in environmental issues and specifically in climate change was demonstrated when it hosted the United Nation's Climate Change Talks. The conference, which was attended by high-level officials from more than 100 countries, was opened by the then Ghanaian President, John Agyekum Kufuor, who was reported in local newspapers as noting that the country had made progress on climate change by "building on research and networks and widening debate on the subject" (*Daily Graphic*, August 22, 2008: 3).

Such initiatives and public rhetoric suggest there is political will and an openness to discussing and addressing issues of environmental sustainability among Ghana's ruling elite. However, the reality may not be as simple. The purpose of this study is to interrogate more closely Ghana's commitment to environmental sustainability by examining some of the dominant discourses on climate change and global warming which have appeared in leading Ghanaian newspapers.

2.2 Focus and Methodology

Three newspapers were selected for this study – *Daily Graphic*, *Daily Guide* and *Business and Financial Times*. The *Daily Graphic*, Ghana's newspaper of record and the most widely circulated newspaper in the country, is state-owned and has a news culture of covering officialdom. It is read by policy makers and other influential people in Ghanaian society and represents an elite paper. The second newspaper, *Daily Guide*, is a privately-owned tabloid with a penchant for covering the underbelly of politics. It represents what can be considered a popular newspaper. Finally, as its name implies, the privately-owned *Business and Financial Times (B&FT)* is aimed at the business world and was chosen because it represents a specialized newspaper.

The sample for the study was chosen from the first half of the year 2008 (January to June) and all editions of the three selected newspapers were initially sampled. The newspapers contained in this initial sample were subjected to a search for the key words "climate change" and "global warming" in an attempt to identify and isolate stories on these two related subjects.

A further sample of stories was then drawn from the resulting pool of stories generated by the search in which articles that contained the key words but were not essentially on climate change or global warming were considered peripheral and discarded. This level of analysis produced a smaller pool of selected articles which were then subjected to a content analysis in an attempt to determine the dominant trends in discourses on climate change and global warming, the sources of the stories and the manner in which issues on climate change and global warming were framed. By analyzing news frames used in Ghanaian climate change stories we can determine how journalists have diagnosed, evaluated and prescribed solutions to the problem of climate change.

Finally, in order to better understand the implications of the manifest content analyzed in the sample of newspapers, two journalists (one from *Daily Graphic*, the other from *Daily Guide*) were interviewed for their opinions on how environmental issues were being covered in Ghanaian newspapers. These in-depth interviews were aimed at providing valuable insights into the news production process and helped to deepen understanding of the agency and agenda behind what is ultimately generated as news on climate change.

2.3 Media in Ghana

Re-democratization in 1993 transformed the Ghanaian media landscape from a virtual state monopoly to a liberalized environment, which gave rise to an unprecedented proliferation of both print and broadcast media. Currently, there is an estimated 40 different newspaper titles on the market, 130 FM radio stations and close to 10 different television stations on air.

In contextualizing the Ghanaian media and assessing their capacity to report on climate change it is useful to remember that journalistic practice is situated in the politics, economics and culture of a society in political and economic transition, confronted by formidable developmental challenges. Economic and political reforms in the 1980s and 1990s have not only led to more privately-owned newspapers competing with existing ones for market share, but have resulted also in newspapers struggling to survive against the new dominance of FM radio in a limited advertising market.

Generally, newspapers in Ghana are poorly capitalized and little more than cottage industries, thus their capacity to generate investigative reports and to cover a wide range of specialized subjects, including the complexities of environmental degradation and climatic change, are severely limited. In addition, competition and commercialization constantly exert pressures on news production, influencing in subtle and not so subtle ways what newspapers consider newsworthy.

In the highly competitive nature of multi-party democracy the logic and practice of journalism in Ghana is highly determined by a mix of political considerations and commercial interests. For most privately-owned newspapers especially, political news and scandals, considered as what often sells newspapers, routinely crowd out news about other important socio-economic happenings and developments in the country.

Compounding the predilection for news that sells rather than news which is necessarily in the public interest are old conventions of journalism and the hangover of a past authoritarian political culture which act as constraints on media practice. Ghana's chequered political history of media appropriation and repression in the process of nation building pre-disposes especially state-owned newspapers to the kind of journalism that panders to officialdom and generates mostly government-centred news. Having been long accustomed to toeing the official line, Ghanaian journalists remain (even in these more politically liberal times) ill-equipped to subjecting state policies to critical reviews and helping to ensure that public pronouncements are translated into public actions. Thus the culture of investigative journalism and scientific reporting remains weak, overall content remains quite poor and 'propaganda' stories or officialdom-centred positions take up a significant amount of the news hole in state-owned newspapers.

Despite these shortcomings Ghanaian newspapers, like newspapers elsewhere, have been quite instrumental in stimulating discussion on issues of national salience and are considered central to Ghana's transitional democracy and the ultimate development of the country. They remain the main information channels through which policy and change are communicated and thus can serve as a useful barometer on local attitudes to particular challenges such as climate change and global warming and provide useful insights into the level of public interest, awareness, concern and action on such issues.

2.4 Climate Change Content in Newspapers

The initial key word search conducted on the *Daily Guide*, produced 49 hits on the word "climate change," and 14 hits on "global warming" (63 combined) from a total of 41 articles. The *Daily Graphic* contained the word "climate change" 133 times and "global warming" 23 times (156 combined) in a total of 75 articles, while *B&FT* produced 51 mentions of the word "climate change" and 10 on "global warming" from only 19 articles (See Table 2.1).

A sizeable number of the articles in the initial sample produced by the search for key words were at best spurious. For example an article in the *Daily Guide* on the activities of members of the Parliamentary Select Committee on Environment, Science and Technology on the state of road construction, headlined “Road Project in Crisis,” mentions MPs expressing concern about the “level of environmental degradation.” An MP is quoted as noting among the effects of the massive degradation of the environment “climate change, water shortage, pollution and a warming planet” (*Daily Guide*, January 24, 2008: 4). Such articles were not considered among the final pool of stories which were subjected to content analysis.

As a result, although the goal was to content analyze a total of 100 articles, the final sample size produced only 85 articles. There were 33 articles each from the *Daily Graphic* and *Daily Guide* but only 19 articles from the *Business and Financial Times (B&FT)*.

Table 2.1: Word and Article Count

		Climate Change	Global Warming	Most Relevant Articles
Total	<i>Daily Graphic</i>	133	23	75
	<i>Daily Guide</i>	49	14	41
	<i>B & FT</i>	51	10	19

These preliminary findings indicate that the phenomenon of climate change is far more likely to be discussed in Ghanaian newspapers than the concept of global warming. They suggest also that the state-owned newspaper is more likely than privately-owned newspapers to publish articles on climate change, and that there is little interest in the subject by the business newspaper.

The *Daily Graphic* is a much bigger newspaper than *Daily Guide* and *B&FT*, with an average of 48 pages per issue compared with 24 for the *Guide*. With the exception of Sundays they both come out every day. The *B&FT*, on the other hand, comes out only twice a week and averages 28 pages for each print run. These imbalances in the news hole of the three selected newspapers may partially explain why there are more climate change stories in the *Graphic* than the other two newspapers and why *B&FT* had such few stories on the subject. But news selection practices may also have accounted for the disparities in climate change coverage. The *Guide* has a predilection for sensational stories that are often personality driven and political, while the *Graphic* tends to cover officialdom and to chronicle routine events of some importance to society.

2.5 Sources of Climate Change Stories

A number of influences affect newsgathering operations, including the role of sources and other powerful players. Journalists rely on certain actors as sources of information and they represent organized or unorganized interest groups, or ordinary members of society who see the relationship with journalists as opportunities to promote their interests, publicize their ideas or insert their voices into national conversations. Determining who the sources of stories on climate change are can inform our understanding of the key drivers of the climate change debate and indicate the diversity of voices heard on the issue. The propaganda model (Herman and Chomsky, 1988) argues that a combination of government and corporate sources of information intent on protecting elite interests help to set the media’s agenda. These

officially approved sources and experts have disproportionate access to news media and are able to deliver ‘flak’ about media content they are unhappy with.

The study identified the following six major sources of information on climate change from the sample:

- Government/politician/public official
- Scientific or academic authority
- Company/business
- Community leaders
- Civil society/NGO
- International actors

Table 2.2: Type of Sources

	Politician/ Public Official	Scientific/ Academic Community	Company / Business	Int’l. Actors	Community Leaders	Local NGO/ Civil Soc	Ordinary Individual
<i>Daily Graphic</i>	7	9	0	15	0	3	0
<i>Daily Guide</i>	10	2	3	19	2	2	0
<i>B & FT</i>	0	0	0	13	0	0	0
Total	17	11	3	47	2	5	0

As indicated by Table 2.2 the impetus for climate change stories in the news comes from predominantly international sources represented by influential figures and organizations (e.g. UN Secretary General), international civil servants, civil society or governmental organizations. More than half (47) of some 85 different sources identified in the sample were international actors. Officialdom, representing politicians, government and public officials, came a distant second. Officialdom made up nearly 20 percent (17) of the sources in the sample, followed by the scientific/academic community (13 sources). Local civil society organizations, the business community and local authorities were only used as sources sporadically, and constitute six percent, 3.5 percent and two percent respectively of all the sources identified in the sample. Strikingly absent are voices of ordinary people that one would have expected should at times be reflected in discussions on climate change or global warming.

Clearly, the data suggest that the discourse on climate change is being driven by the concerns and voice of global rather than local actors. The fact that there are so few local sources of climate change stories can be viewed as reflective of a certain lack of ownership of the climate change agenda by Ghanaian actors – from policy makers, to pressure groups, to ordinary citizens.

2.6 Type of Stories

Most of the stories on climate change fall under the category of routinized news as opposed to enterprise news. Routinized news is defined as already-made stories in which information comes to the journalist prepared, at least in rudimentary form, and may be presented at scheduled programmes such as staged events (Hansen, 1991). In Ghana routinized news is generated from speech-events such as the opening of conferences, workshops, seminars and other formal forums of public discussion.

Enterprise stories, on the other hand, are those originally conceived of by journalists and for which the information is elicited through interviews and other background checks between journalists and information sources (Hansen, 1991). Hansen argues that unlike routinized stories, enterprise stories enable a use of a more diversified source base in which ordinary people and marginalized groups could be heard.

The sample of articles in this study shows that rarely are enterprise stories initiated by journalists. Moreover, most of the routinized stories are treated in the straight news style of reporting, which allows for very little exploration of issues in the story beyond who said what, where and when. The result is that articles lack explanatory power and are at best reactive rather than proactive.

The lack of enterprise stories offers some explanation for the limited diversity of voices, especially from communities, which may be affected by some of the climate change issues discussed in the stories. As Table 3 below indicates there were only 13 feature articles, three editorials and eight opinion pieces on climate change, representing altogether only 28 percent of articles. This reflects not only a lack of enterprising journalists interested in climate change but importantly also suggests there is little action and public engagement on the part of stakeholders on the issue beyond a few staged events.

The two journalists interviewed for this study conceded a lack of pro-activeness in newsgathering activities and a dearth of key actors on climate change. The editor of *Daily Guide* provided a possible explanation for this by stating the following:

Our coverage is driven by events and invitation to events. When there is a low level of activity on the part of NGOs etc. then little news is generated. The NGOs support journalists by training them and taking them to sites to observe firsthand the impact of environmental degradation. But in the last few years there has been a slow-down in that sort of collaboration.³

The *Daily Graphic* reporter interviewed described coverage as “touch and go,” explaining that typically the editor sends any reporter who is unassigned to cover environmental issues, mostly routinized stories instigated by calls or information from organisers of events. If the assignment involves someone of prominence senior reporters are sent to cover it, otherwise any reporter can be assigned.⁴

Also, an obvious sign that climate change has not as yet exercised the imagination of journalists may be gleaned from the fact that in general there were very few editorials or opinion pieces generated on the subject. Editorial and opinions allow journalists to take a stand on an issue; to step out of the “stenographer” role (straight delivery of facts) into the kind of “referee” reporting (Pooley, 2009) that is helpful in determining the right and wrong in the strands of arguments on a given topic under discussion. It is striking that more than a third (7) of the articles on climate change in B&FT, the paper with the least number of articles, were treated as editorials or opinion pieces, while the *Daily Graphic*, considered the voice of officialdom, found few occasions to take a stand on such matters, publishing only two editorials and two opinion pieces in the time period under study.

³ Interview with Fortune Alimi, Editor of *Daily Guide*, Nov 20, 2008

⁴ Interview with Caroline Boateng, Senior Reporter *Daily Graphic*, August 20, 2008

Table 2.3: Story Type

Newspaper	Routinized	Enterprise	Editorial	Opinion/ Commentary
<i>Daily Guide</i>	31	2	0	0
<i>Daily Graphic</i>	23	6	2	2
<i>B&FT</i>	7	5	1	6
Total	61	13	3	8

Placement

Where a story is placed in a newspaper gives an indication of the importance a newspaper attaches on a story and suggests that the issue is on the top of the news agenda. The front page is the most prominent space in a newspaper; the back page and centre spread often ranked next to the front page in order of importance.

In Ghana when climate change stories are covered they hardly make “the headlines.” Only two articles out of the 85 articles sampled made it on the front page (*Daily Graphic*). One other article was placed on the back page of the *B&FT*, a somewhat prominent location in terms of attracting the attention of readers. We can infer from this that newspapers do not find climate change very newsworthy and therefore do not place them in eye-catching spaces. As the Editor of the *Daily Guide* put it “No big stories come out of that [climate change].”⁵ The relegation of climate change stories to obscure pages in newspapers signals that the subject is not on the top of the agenda of the Ghanaian media.

Framing

Framing is a useful concept that offers a way to describe the power of a communicating text (Entman, 2003). Analyzing news frames can help illuminate the influence a text is meant to have on its readers because essentially it involves selection and salience. Most of the articles on climate change and global warming found were framed to create awareness of the threat and causes of climate change. Many of the articles are supportive of a consensus that climate change is serious and caused by human activity and can therefore generally be addressed by a change in attitude and behaviour. Only one article, which was generated from international rather than local sources, was contrarian. Headlined “civil society releases report on climate change,” the article noted that “as the global warming debate rages on, a coalition of 41 civil society organizations worldwide has released a report that suggests that the perceived threat might be exaggerated” (*Business and Financial Times*, March 19, 2008: 2).

In general, many of the articles that refer to climate change and global warming in Ghanaian newspapers are diagnostic rather than evaluative, or prescriptive. They merely scratch the surface of what is a complex issue, fail to go beyond identifying it as a problem in need of addressing and are largely silent on any systematic ways of tackling the threat. And perhaps because environmental stories often come from top down, articles are framed in ways that disconnect them from people’s lived realities.

In the few instances where they are discussed in any meaningful way, however, climate change and global warming are presented as threats that need to be tackled through concrete action on the part of government and at times individuals.

⁵ Interview with Fortune Alimi, Editor of *Daily Guide*, Nov 20, 2008

2.7 Core Themes

A useful question to ask of this study is what are the dominant and recurring themes on climate change considered newsworthy by Ghanaian journalists? The sample shows that there is a dearth of articles that focus solely on the issue of climate change. Many of the references to climate change and global warming make their way into articles as part of other ongoing discourses on environmental issues, anxieties about livelihoods, and other developmental challenges. It is important to note also that some of the recurring dominant themes emerging out of such narratives are intersecting and thus there may be two or three dominant themes discussed or referenced within a single article.

Seven dominant themes or recurring references of climate change and global warming emerge out of the newspaper analysis:

- Climate change causes and general effects
- Climate change and development challenges: livelihoods: food security and health
- Climate change and shifts in weather – flooding
- Information about Western policy initiatives and actions
- Deforestation and desertification
- Local responses
- Government policies and actions

These are by no means the only themes that were contained in the articles under review but they comprise the most recurring references on the issue and thus are reflective of the trend of climate change discourses. Discourses on developmental challenges brought about by climate change, such as food security, livelihoods and health, predominated, forming almost a quarter (23%) of the discourses on climate change found in the corpus of articles under review. This is understandable especially as there was a global food crisis that affected many developing countries during the period under review (the first half of 2008). Another 15 percent of the articles were devoted to discussions on the causes and effects of climate change. Articles providing information on Western policy initiatives and actions comprised another 15 percent of the dominant discourses identified.

Less than 10 percent of the articles were considered as reflecting local responses to climate change, about five percent tackled or referred to deforestation and even fewer, about 1.5 percent, provided information on government policy and actions on climate change. This is another indication of a lack of local ownership and government commitment to climate change. As the reporter from *Graphic* pointed out, “We cover high government officials, so if they don’t pronounce on the environment then it doesn’t get covered.”⁶

The *Daily Guide* editor argued that generally, the lack of policy focus and government inaction on the environment can be determined from the fact that the environment ministry is always being reconstituted and merged with some other ministry and so does not get enough attention. There used to be a ministry of environment, science and technology a decade ago, which got changed to a ministry of environment and science (signaling more attention, perhaps) before environment was hived off and added to local government, an implication that environmental issues are predominantly sanitation issues best handled by district and

⁶ Interview with Caroline Boateng, Senior Reporter *Daily Graphic*, August 20, 2008

municipal authorities. A recent change in government has brought about yet another realignment of ministries and change in designation, resulting once more in a Ministry of Environment, Science and Technology.⁷

2.7.1 Climate Change Causes and General Effects

Many of the articles mention how Ghana has been affected by adverse effects of global climate change, such as flooding and food security, and a change in weather. In this sense, Ghana is framed as a victim of a wider global problem not necessarily of its own making.

In his New Year speech, the President, for example, noted “the severe energy crisis which was followed by an unprecedented and disastrous flooding of several parts of the country, which could be the effect of global climate change” (*Daily Guide*, January 2, 2008:3). Similarly, a member of parliament was reported as blaming the effects of the massive degradation of Ghana’s environment on “climate change, water shortage, pollution and a warming planet” (*Daily Guide*, January 24, 2008: 4).

2.7.2 Climate Change and Development Challenges

Two strands can be discerned from discourses on climate change which are linked to developmental challenges – climate change as exacerbating developmental challenges and climate change as a developmental challenge to be confronted. Emerging from the first strand of this theme (climate change exacerbating problems of development) are, for example, articles on the food crisis, which was blamed largely on climate change.⁸ International organizations such as the World Bank and UN were often cited as expressing concern about the rise in food prices and the impact of food shortages on the world’s vulnerable populations most of whom are in Africa. It is in this sense that we can view the climate change debate in Ghanaian newspapers as largely linked to developmental challenges such as food security, the risk of deepening poverty, health, provision of water and energy, and the inability to meet the Millennium Development Goals (MDGs).

Newspapers published for example, statements by international actors such as UN Secretary General Ban Ki Moon, or World Food Programme officials, expressing concern about the difficulties of developing nations meeting some MDGs, or facing food crisis, partly because of climate change (*Daily Guide*, April 23, 2008: 11, *B&FT*, April 14, 2008: 19, *Daily Graphic*, March 8, 2008: 6),

Articles that reflected the second strand of discourses – climate change as a developmental challenge to be confronted – were exemplified by a report on a summit on Africa held in Japan, carried in the *Daily Guide* in which the paper identified climate change amongst the issues “topping the agenda” of developmental challenges, along with others such as health care and education (*Daily Guide* May 27, 2008: 5). Another *Daily Guide* article, which reported on the World Bank Global Monitoring Report 2008, stressed “the link between the environment and development” and called “for urgent action on climate change” (*Daily Guide*, June 27, 2008: 9).

⁷ Ghana held a general election in December 2008 resulting in a change of government.

⁸ There was global concern about a shortage of food and hiking of food prices in many countries around the world and anxieties about its impact on especially poor countries during the period the study was undertaken.

The solutions most often offered in stories linked to food security and threats to livelihoods suggest investments in agriculture and fairer trade policies, rather than solutions specifically aimed at arresting climate change.

2.7.3 Climate Change and Shifts in Weather

Some of the stronger discourses on the consequences of climate change were those on changes in weather patterns resulting from climate change. An example is a *Daily Guide* article titled “the *harmattan* and heat climate change,” one of few features exploring the issue. The article noted changes in weather patterns around the globe and cited several examples from around the world to illustrate a global pattern which was also affecting Ghana (*Daily Guide*, February 2, 2008: 13). Another can be found in a *Graphic* story headlined “prepare for worst weather – expert,” in which a scientist in Geographic Information Systems predicts “extreme weather conditions in the country this year as a result of global climatic changes” (*Daily Graphic* February 16, 2008: 1). The article was given prominence by placing it on the front page and it quotes the scientist linking climate change with developmental challenges. The source also offers prescriptions such as “reafforestation and a drastic reduction in carbon emission into the environment to reduce what he termed “the triggers of the change” (ibid).

2.7.4 Information about International Policy Initiatives

Western or externally-driven policies and actions on climate change and global warming formed about 16 percent of the dominant discourses found in the corpus of articles. Such stories typically emanated from the agenda of international conferences, workshops, or reports, or from announcements of international community initiatives in providing financial assistance for development needs linked to climate change. As with many of the themes, there was little critique of these initiatives, policies or actions and little follow-up stories on outcomes. For example, marking World Health Day, the WHO Representative in Ghana was reported as saying it was the beginning of an international movement that would catalyse public participation to protect health from the adverse effects of climate change and that health would be put on the UN agenda on climate change (*Daily Graphic*, April 8, 2008: 24). There was no mention in that story of a policy initiative from Ghana.

2.7.5 Deforestation and Desertification

Severe deforestation has plagued Ghana for more than two decades and there have been efforts to address it through reafforestation. Discourses on climate change reflect local concerns about de-forestation and recognize it as a major contributory factor to changes in weather and livelihoods. Thus a report on the UN Climate Change conference in Bali, Indonesia in December 2007, which was carried in the *Daily Guide*, focused on how to “save Africa’s forests: the lung of the world.” Another on renewable energy reported a local expert as noting that wood fuel was causing deforestation and desertification and contributing to climate change (*Daily Guide*, May 6, 2008: 14). This article could also serve as an example of the interlocking discourses on climate change because it notes the causes and effects of climate change.

2.7.6 Local Responses

Beyond pontificating about the need for people to change their attitudes and behaviours generally, a few of the articles sampled captured local responses to climate change. Climate change and global warming are viewed as resulting mainly from environmental degradation, and pollution. Consequently, many of the suggested solutions as well as actions are aimed at forest conservation. There were discourses proposing a replication of traditional sacred groves and small holding forests (*Daily Guide*, January 24, 2008: 4), as well as more modern technologically-based approaches such as biofuels, ICT and solar energy (*Daily Guide*, May, 2008: 14). Some stories also proposed the planting of trees as a response to deforestation and invariably climate change (*Daily Guide*, March 12, 2008: 17). The article on renewable energy quoted above suggested a multiplicity of solutions, including resorting to solar energy, to promoting wood plantations, encouraging local people to plant new trees and giving alternative fuel options such as Liquefied Petroleum Gas (*Daily Guide*, May 6, 2008: 14).

Perhaps one of the more substantive discussions on local initiatives on climate change came from the corporate sector and in the form of a lengthy interview with the Managing Director of Standard Chartered Bank-Ghana on World Environmental Day. Headlined, “corporate entities must support environmental protection,” the Managing Director makes reference to the effects and impact of climate change and the actions of Standard Chartered Bank in addressing the problem in the business environment:

Through our products and services such as financing renewable energy and clean technologies, we are ensuring the sustainability of the space we occupy... Externally, we are, in tune with the theme for this year's celebrations, planting 2000 trees across Ghana in selected schools, routes and locations to help reduce Carbon Dioxide in the atmosphere under our “Greening Our Space initiative” with the support of the Forestry Commission (*Business and Financial Times*, June 9, 2008: 5).

2.7.7 Government Policies

Most telling was the fact that few articles outlined official government policy on climate change and global warming. What local policy discourses were found in the newspapers came in the form of critiques on the lack of policy to address key climate change concerns and from experts suggesting policies on energy or forest conservation. An example is an article which reported the executive director of the Volta Basin Development Foundation, Richard Twum Koranteng, telling a press briefing that environmental impact assessment of the Bui Dam had not taken account of the likely effect of climate change on the dam (*Daily Guide*, February, 21:10). Another is the renewable energy story cited earlier in which the expert source was advocating policies on renewable energy and fuel (*Daily Guide*, May 6, 2008: 14).

The exception to this trend was an article on a workshop organized for Parliament on climatic change in which the parliamentary leadership announced important policy initiatives, including facilitating legislation on climate change. The Majority Leader and Minister of Parliamentary Affairs was reported as saying the purpose of the workshop was to “equip MPs with enough information on climate change to enable parliamentary committees to be motivated to exercise their oversight responsibility over institutions to minimise the threat of climate change.” In attendance was the Minister for Local Government, Rural Development and Environment who was reported as saying Ghana was working on a national adaptation process whereby individuals and communities would be encouraged “to reduce potential

climate change in eight sectors of the economy” (*Daily Graphic*, June 23, 2008: 16). The newspaper did not explicate on exactly how this would be done.

While substantial space was devoted to this story, the overall significance of its import seemed lost on the *Daily Graphic* as it was placed in the inside pages of the newspaper and not prominently displaced.

2.8 Reflections and Conclusions

There is an advertisement for PVC pipes repeatedly aired on radio in Ghana featuring a character called Atongo, who claims the brand he is selling can address “global warning [stet].” Atongo maintains that when his pipes are laid Akosombo⁹ would not have to wait for rain; that his pipes can face desert heat and Eskimo cold. Another character in the skit corrects him, saying, “ibe [it is] global warming, not global warning,” to which Atongo responds: “all be the global now, whether warning or warming.”

It is tempting to conclude that this very popular advertising skit, spoken in Pidgin English, is a sign of an appreciable level of consciousness about the cause and effects of global warming in Ghana and that climate change discourses are becoming a part of popular discourse. But the corpus of articles contained in the sample contradicts this viewpoint. Indeed, the overall findings from this study suggest a lack of ownership of the climate change debate on the part of major stakeholders – the government, scientific community, civil society, the media and of course ordinary Ghanaians whose lives are being impacted by the effects of climate change in discernible ways. The fact that many references to climate change and global warming in the Ghanaian newspapers sampled were spurious, suggests sloganeering rather than substantive attention to the issue. The fact that the majority of sources cited and quoted on the issue were international rather than local actors is also indicative of an agenda driven from outside rather than within. The lack of enterprise stories further suggests the media act as cheerleaders and amplifiers of messages from others, rather than independent actors who set the agenda and promote debate on this global problem. Weak journalistic commitment to the climate change agenda is confirmed not only by such lack of initiative in sourcing stories but also in the near absence of editorials or opinion pieces exploring the problem and taking a definite stand on the issue.

The media play an important role in stimulating discussion in developing countries yet journalists have a poor understanding of the climate change debate and express little interest in it. The predominant news culture of routinized stories where reporters wait to be invited to events accounts for the paucity of climate change-related stories in Ghanaian newspapers. But a contributory factor also is the absence of specialized desks on the environment and lack of expertise on the science of climate change by the local press. The social issues-oriented newspaper *Public Agenda* used to be noted for its good coverage on the environment, won awards for its environmental reports and had a dedicated reporter on the beat. But after the reporter left to take up a job as a public relations executive for a sanitation company, the number and quality of articles dipped and the paper lost that reputation. Similarly the *Graphic* seems to have lost its commitment to environmental reporting following the departure of one of its reporters who had on his own initiative built expertise in that area. The reporter from the *Graphic* confirmed the inconsistency in the paper’s approach to covering the environment

⁹ Akosombo Dam is the main source of electricity generation in the country. In certain years poor rainfall lowers the level of water in the dam resulting in power blackouts and power rationing.

and the absence of specialized reporters, including herself, who are sometimes called upon to report in that area.

The Editor of the *Guide* also conceded that his paper had no specialized desk or reporters even though he recognizes that environmental issues are important and of relevance and interest to his readers. Part of the reason for the neglect of climate change stories was his perception that “no big stories come out of that beat.” The paper used to have a weekly page dedicated to the environment presided over by a photographer turned journalist, but it was discontinued because management thought he did a poor job of it. According to the Editor, the page was often filled with poorly written and barely comprehensible articles on afforestation and sanitation.

Not surprisingly, the human and resource capacity limitations of most newspapers manifests in the lack of depth and comprehensiveness of stories on climate change. Only a few stories (for example, *Daily Graphic*, March 15, 2008) attempt to explain the “science” behind global warming and climate change to readers. That *Graphic* story was about the only article that mentioned Kyoto and the fact that a local bank was interested in carbon trading, and attempted to explain in detail how these affect Africa. The silence on key climate change issues such as Kyoto and carbon trading suggests a low level of sophistication on the debate and when viewed in the context of the near absence of policy debate, further confirms the lack of local ownership of the agenda.

The climate change stories in *Daily Graphic*, *Daily Guide*, and *Business and Financial Times* are heavily reliant on international sources of information, and not reflective of the concerns of ordinary Ghanaians. And while on the surface policy and law makers appear to have bought fully into the message of the IPCC there are few indications from newspaper articles that the proposals on combating climate change are being implemented in Ghana.

When the nominee for the Ministry of Environment, Science and Technology came before the Appointments Committee of Parliament to be vetted for ministerial approval recently, many of the questions posed to her were on the effects of global warming and climate change. While the Minister’s answers reflected thinking in line with dominant positions on climate change, some of the comments from parliamentarians reflected scepticism and contrarian attitudes to climate change. An M.P from the minority party, who had previously served as a deputy minister for energy, for example, asked whether global warming was real and then disagreed with the nominated minister’s suggestion that tsunamis could be related to global warming.¹⁰

Quite clearly, despite having ratified international treaties and conventions on climate change, despite a workshop on climate change targeted at lawmakers and promises to “facilitate legislation on climate change” (*Daily Graphic*, June 23, 2008: 16), legislators remain ambivalent. Newspaper discourses analyzed in this study indicate that they are not the only influentials whose voices are muffled. Other stakeholders such as the government, activist groups and the scientific community have been equally ineffective in influencing the news agenda on climate change, thus compounding the capacity challenges of the media.

As is often argued, the media mirror what happens in society, so unless those engaged in climate change issues cooperate with journalists to provide information for good stories and

¹⁰ The Minister for the Environment, Ms. Sherry Ayittey appeared before the Appointments Committee of Parliament in February 2009 as part of the process of confirmation to become Minister.

public debate, the warnings on global warming and climate change will have little chance of reverberating with the larger Ghanaian public.

2.9 References

Entman, Robert (2003). *Framing: towards clarification of a fractured paradigm*. In McQuail, Dennis (ed.). *McQuail's Reader in Mass Communication Theory* London, California, New Dehli: Sage

Hansen, A.K. (1991). *Source Diversity and Newspaper Enterprise Journalism*. *Journalism Quarterly* Vol. 68. No 3.

Herman, E. & Chomsky, N. (1988). *Manufacturing Consent*, New York: Pantheon Books.

Pooley, Eric (2009). *How much will you pay to save the planet?: The American Press and the Economics of Climate Change*. Joan Shorenstein Center on the Press, Politics and Public Policy, Kennedy School, Havard. Discussion Paper 49, January 2009

3.0 Climate Change in Norwegian Newspapers: Global Action and Domestic Laissez Faire

Atle Midttun and Hilde Nordbø

3.1 Introduction

In March 2009 the Norwegian business newspaper *Dagens Næringsliv (DN)* published “The hidden climate game¹¹”, an article in which it summarises the essence of Norwegian climate policy as follows:

Internationally Prime Minister Jens Stoltenberg champions trade in climate quotas so that the Norwegian petroleum industry may pump oil and gas in peace. (...) 18 years after he embarked on a mission to promote climate trade, Norway’s CO₂-emissions have risen by 29%. Emissions in other parts of the world have also accelerated. When will the Prime Minister’s economic climate miracle start working?

Dagbladet, a more populist Norwegian paper, published an article in April 2008 describing the debate over climate fundamentals initiated by the right-wing, populist Progress Party (Fremskrittspartiet)¹². The article reports that the Progress Party had chosen a Swede with a doctorate in welding as their climate analyst, giving him a platform from which to challenge mainstream climatologists. According to the *Dagbladet* article, the Swedish welder claims that, rather than facing global warming, we are heading towards a new ice age. The article then continues to cite Norway’s most renowned environmental leader Frederic Hauge (head of the environmental organisation Bellona) who claims that the Swede has inflicted welding-blindness on the Progress Party. However *DN* also reports on the Progress Party leader Siv Jensen reiterating that the background of the Director of the University of Oslo’s Centre for Climate Research (a biologist whose main research is on rabies in polar foxes) is hardly more relevant than that of a welder.

These two stories illustrate the two poles in Norwegian climate reporting: critical investigative journalism, awarded the prestigious “Scoop” prize in 2009, and reports on entertaining debates between populist dissidents and mainstream climate elites. The stories are also emblematic of two main trends in Norwegian climate orientation: the first is the Norwegian propensity to leave untouched the growing domestic petro-economy and petro-wealth and relegate climate policy to international markets. The other is the continuing debate over climate fundamentals, long after most other countries have moved beyond this stage.

¹¹ DN. 23-03-09

¹² Dgbl 18-04-08

3.2 Focus and Methodology

This study examines the extent and nature of climate change coverage in Norway through a content analysis of three newspapers: *Aftenposten*, *Dagbladet* and *Dagens Næringsliv* – complemented by in-depth interviews with journalists. *Aftenposten*, Norway’s newspaper of record and the newspaper with the widest circulation, is privately-owned and has broad coverage of news, culture, public policy and business. It represents the category of elite newspapers in this study. *Dagbladet*, a leading, privately-owned tabloid which traditionally has been a moderate left-wing publication represents what we considered to be a popular newspaper. Finally, as its name implies, the privately-owned *Dagens Næringsliv* (*Business Daily*) is aimed at the business world and thus represents the category of specialized newspapers.

All editions of these three newspapers in the first half of 2008 (January to June) were subjected to various levels of content analysis. The first level of analysis was a search for the key words “climate change” and “global warming.” Next, all articles containing these key words were identified and a sample of articles selected for further analysis. Articles containing key words but which were considered peripheral to the issue were discarded. Finally, the selected articles were subjected to deeper analysis in an attempt to determine the dominant trends in discourses and the framing of issues of climate change and global warming.

A total of 100 articles were selected from the three newspapers, 33 from each paper. In addition to content analysis we interviewed *Aftenposten*’s climate specialist on his opinions on how environmental issues are covered in Norwegian newspapers¹³.

3.3 The Media in Norway

The Norwegian climate debate is vibrant and extensive, and is communicated through a rich and diverse press. Norwegians top the list of the world’s most avid newspaper readers and Norway has a prodigious number of newspapers and magazines. The press is financially stimulated by a state subsidy scheme for daily newspapers. Both the government and the press, however, agree that this scheme should not be allowed to infringe upon the independence and freedom of the press in any way. The government has therefore adhered strictly to the principle of non-interference in editorial matters in newspapers receiving financial support. In the matter of climate change, therefore, the media in Norway can provide useful and relatively uncensored insights into levels of public interest, awareness, concern and action on the issue.

3.4 Climate Change Content in Newspapers

The key word count uncovered that “climate change” is a hotter topic than “global warming”. In the popular daily (*Dagbladet*) “global warming” was mentioned 72 times and “climate change” 197 times. In the business paper *DN* “global warming” was mentioned only 16 times and climate change 142 times. In *Aftenposten*, Norway’s newspaper of record, “climate

¹³ Interview with Ole Mathismoen March 3rd, 2009 in Oslo

change” was mentioned 681 times and “global warming” 195 times. One reason for this difference could be that “global warming” is a more concrete term than “climate change”. It is easier to link particular cases, especially local ones, to climate change than to global warming. Climate changes are evident and easy to observe in different places in the world, whereas global warming is on a larger scale and, to a larger extent, part of the bigger picture (see Table 3.1).

Table 3.1: Word count¹⁴

		Climate change	Global warming	Most relevant articles
Total	<i>Dagbladet</i>	95	41	67
	<i>Aftenposten</i>	238	90	110
	<i>DN</i>	66	13	64

3.5 Sources

As indicated in Table 3.2, the impetus for climate change stories in Norway generally comes from the scientific/academic community (27) or from politicians and government officials (23)¹⁵. This pattern characterizes all three newspapers. Local NGOs and civil society are the third most important source and, interestingly, feature most dominantly in the business newspaper. This is partly a result of the fact that Frederic Hauge, leader of Bellona, writes feature articles for *DN*. The NGOs appear to want to engage particularly with the business community, and acknowledge business as an important fellow player in the battle against climate change. Businesses, international actors and ordinary individuals figure less prominently, and community leaders hardly at all. The discourse on climate change in Norway is, in other words, driven by the concerns and voice of local, rather than global actors, in which scientists and politicians play prominent roles, but where leading NGOs also have a say

The business newspaper *DN*, appears to have a more political focus than the other newspapers. However, a closer look at the content reveals that most articles are on conferences, seminars or other formal forums of public discussion. It would appear that wherever there is a climate event, *DN* will send a journalist along to report on the conference. In fact, it is the same journalist who has covered all such conferences (Kjetil B. Alstadheim). As a result, there is a great deal of coverage of international climate events, but less on how the business community (and others) can contribute to fighting climate change.

¹⁴ Article count refers to the numbers of relevant articles. The final 33 articles from each paper are selected from the pool of articles.

¹⁵ The first category either refers to a person from the scientific community who has written an article/feature article, or the journalist is citing a researcher or a scientific report. Politicians and governmental officials are also either authors or sources of stories.

Table 3.2: Sources

	Politician / Public Official	Scientific/ Academic Community	Company / Business	Int'l. Actors	Community Leaders	Local NGO/ Civil Soc	Ordinary Individual
<i>Aftenposten</i>	7	12	1	3	1	4	3
<i>Dagbladet</i>	8	9	4	3	0	3	3
<i>DN</i>	8	6	5	3	0	7	1
Total	23	27	10	9	1	14	7

3.6 Type of Stories

Most of the stories on climate change fall into the category of routinized news, such as information related to announcements, press conferences, statements made by government or corporate officials etc. Routine stories are often gathered at climate conferences both in Norway and globally.

As Table 3 indicates, there were just a few feature articles, predominantly in the popular newspaper *Dagbladet*. Two of the editorials concern the reduction in fear of using nuclear power as an alternative source of energy. *Aftenposten*, the elite newspaper, has the largest number of articles initiated by journalists themselves - so-called enterprise news. This category comprises articles with interviews and opinions from local communities all over the world

In the debate section there are often ongoing debates between political parties, as well as debates between journalists and scientists or other representatives of civil society with conflicting views. There are also contributions from writers, actors and young people. There seems to be room for everyone in the Norwegian debate on climate change.

Table 3.3: Story Type

	Routinized	Enterprise	Editorial	Opinion/ commentary
<i>Dagbladet</i>	13	2	4	14
<i>Aftenposten</i>	7	12	0	14
<i>DN</i>	17	6	1	9
Total	37	20	5	37

Prominence

The climate issue is high on the agenda in Norway, and this is also reflected in newspapers. All three newspapers in the study have regular sections covering climate change issues: *Dagbladet* has "Signals", *Aftenposten* has a series of articles called "Hot Planet", and *DN* has both a regular column by Jeffrey Sachs and a series of articles called "Globe in Crisis".

A lot of the issues make the front page, and inside the newspaper the stories are given prominent headlines. Articles are put at the beginning of the main section of the newspaper, or early on in other sections. The popular newspaper *Dagbladet* tends to focus on the individual,

so when climate change issues are on the front page they are related to how it will affect YOU and YOUR everyday life.

Aftenposten had a considerable number of climate articles in its series “Hot Planet” and as these were considered worth reading by a broader public they were published in book form. The book, also called “Hot Planet”, was written by Ole Mathismoen (one of *Aftenposten*’s and Norway’s leading climate journalists).

3.7 Core Themes

The Norwegian debate on climate, as reflected in the press, conveys expectations of a non-dramatic adjustment as far as Norway is concerned. In fact, as indicated in the introduction, there is still a lively debate about climate fundamentals, and whether the threat is real or not. Nevertheless, considerable attention is paid to the melting of ice in the Arctic. The Arctic focus is also related to Norwegian policy interests in the North, which started with the expeditions of our “Arctic heroes” Nansen and Amundsen which still fascinate Norwegians today.

While there is some attention paid to domestic issues, such as health effects, lifestyle issues and fish resources, the Norwegian media also focus extensively on climate issues abroad. The food crisis in Africa is widely covered, as well as Norwegian engagement to save the rain forest in Latin America. The Norwegian media also follow Western climate challenges and policy development. However, the focus is predominantly on policies rather than on problems. The climate challenge is also seen as a challenge to business. There is a demand for stronger policy engagement in several sectors, and even calls for the creation of a Ministry of Climate.

The Norwegian press presents various challenges to government policy, ranging from the far from satisfactory Norwegian results on CO₂ emissions to a demand for more climate-friendly transport policy, as well as for a “Ministry of Climate”.

Given the important role of fishing in the Norwegian economy, it comes as no surprise that the Norwegian press is concerned with the effects of climate change on this natural resource. However, there is also some discussion of the more general effects of climate change on resources.

3.7.1 Lively Debate over Climate Fundamentals

Aftenposten, in particular, but also *Dagbladet*, features a lively debate over climate fundamentals. Both human influence on global warming and global warming itself is contested. This debate reflects the strength of the Progress Party, rivalling Labour in the polls as the largest political party in Norway (with support around the high 20s and low 30s per cent at its peak, but declining somewhat in the wake of the financial crisis.) As noted in the introduction, the Progress Party has staged climate debates with contrarian views and provoked debates with other parties and the scientific community, which are all pro-IPCC. This debate is most prominent in the leading elite paper *Aftenposten*, and less prominent in the business newspaper *DN*.

The debate is dominated by the Progress Party taking the role of (self-appointed) devil's advocate on climate change: it is them against all the others. However, some researchers and scientists have also questioned the magnitude of the crisis that the world is facing. This is illustrated in an article in *Aftenposten* with the headline: *Can we Trust Anyone?* Here Reidar Muller (dr. Scient) and Olav Onarheim (PhD) argue that it is not only the Progress Party that is prone to committing sins with regard to the climate issue.

We read that the sea level will increase by 64 meters, 6 meters or 0,59 - or will it decrease? Is the polar bear near extinction or not?(...) The diversity of reports, researchers and numbers is confusing and creates very contradictory perceptions of the threat from global warming amongst politicians and the general public. (*Aftenposten* April 4, 2008).

These findings are in line with Rydhaug (2006) who points out that the scientific certification of knowledge is seriously undermined by the quest for drama.

In *Dagbladet*, Pål Martin Sand, a member of the Labour Party, pours scorn on Per Sandberg (Progress Party) for holding extremely biased views:

His (Per Sandberg's) message was that the 2500 climate experts from the UN are exaggerating the climate problems and that there are certain scientists/ researchers who claim that climate change is not caused by humans." (*Dagbladet*, February 20, 2008).

On the other hand, Siv Jensen, leader of the Progress Party, claims that the party is only striving for a more balanced debate.

Dagbladet states that the Progress Party uses disagreement in the climate debate as an excuse to reject climate initiatives. This is wrong and reflects a black and white approach (...). The Progress Party wants a more nuanced approach; we believe that is essential to have more than one thought in our heads at a time (*Dagbladet*, April 9, 2008).

The business paper *DN* does not devote much space to the debate at all. It seems to have left the debate behind and focuses predominantly on solutions and climate happenings, rather than on debating causes. Its interest lies in what companies and governments are actually doing and this comes across in headlines such as: "Halvorsen (the Finance Minister) on the Right Track" (*DN*, March 4, 2008), and "Go for it Now Stoltenberg" (the Prime Minister) (*DN*, May 2, 2008).

Our interview with *Aftenposten's* climate specialist reveals that the extensive coverage of the contrarian view was a result of a deliberate editorial decision to let "the other side" have a voice, irrespective of its lack of strong scientific evidence.

3.7.2 Climate Change and the Arctic

Climate change and the Arctic is another prominent theme in the Norwegian press. Norway has traditionally been engaged in the Arctic as a result of our "arctic heroes" Nansen, Amundsen and others, so the theme has a certain popular interest. The media report on concerns regarding the melting of the Arctic ice, as well as on endangered species, notably the polar bear. However, climate change and the Arctic is also described as provoking international conflicts and political controversies over governance. The Norwegian focus in

the North, including strong climate engagement, is therefore related to sovereignty claims over access to resources.

In several articles, *Aftenposten* points out that political visits to the Arctic represent a suitable backdrop for focusing on climate change challenges, as well as a way of lobbying for support for Norwegian governance in the area. The headline “Demonstrating Norwegian Claims in the Arctic - Stoltenberg Ready to Spend Research Funds” (*Aftenposten*, January 9, 2008) illustrates this trend. Another article with the headline “Støre Insists EU should Embrace Maritime Law” (*Aftenposten*, May 6, 2008), states quite clearly that: “The melting of ice caps, new sea routes and opportunities to extract enormous deposits of oil and gas in the Polar area, will increase attention on the Arctic.”

In *Dagbladet* we can see a more populist view of the matter, as illustrated by the headline “Let’s Save the Ice Sergej” (*Dagbladet*, May 28, 2008). The paper also features the story of the “Polar Bear Scam” (*Dagbladet*, February 5, 2008), pointing out that “This picture (of the polar bear) is one of the most widely used in the climate battle. However, the photographer (...) was most concerned with ice formation, and had no idea that the picture would be used as a symbol in the climate battle”.

Dagens Næringsliv presents an article written by Prime Minister Jens Stoltenberg, where he refers to the Arctic as “The Earth’s Laboratory” (*DN*, January 19, 2008), arguing that “the Arctic and Antarctica are the globe’s leading laboratory for understanding climate change”. The focus on research is also emphasized in an article in *Aftenposten* entitled “Five Tonnes of Ice Samples Boxed”, where the Director of the Norwegian Polar Institute, Jan Gunnar Winther, argues that: “In the samples, answers may be found to many as yet unanswered scientific questions on the Earth’s past climate.” (*Aftenposten*, January, 25, 2008).

3.7.3 Climate Change and Concerns for the Developing World

The Norwegian press reports broadly on climate implications for the developing world. This includes food crises in Africa, problems with permafrost disappearing in Siberia, threats to food production in India etc. The press reports see the climate challenge translating into a social challenge as it triggers global South-North migration.

Several articles report on Norwegian initiatives to “save the world” by securing rain forests financed by petro-money. However, they have divergent opinions on the viability of this approach.

With respect to the food crisis, all the newspapers reflect a great concern for the developing world. One *Aftenposten* headline is “Climate Change Provides less Food production in Southern Africa” another “Asia will be severely hit by the climate changes” (February 2, 2008) and yet another “African Agriculture Dries out” (June 21, 2008). *Dagens Næringsliv* declares: “Drought is Threatening Ganges Tableland” (*DN*, February 12, 2008). The story is more dramatically conveyed in *Dagbladet*: “Soon they Cannot Afford to Eat” (*Dagbladet*, April 15, 2008).

Last but not least, the press is also concerned with climate effects in Spain, a country in which many Norwegians have second homes. The first sentence of *Dagbladet*’s article “Drought in Spain (June 12, 2008) is a description of the whole country, as well as of Norwegian tourists after their first days in Costa del Sol: “Spain is sunburned and gasping for water”.

With respect to forest conservation, *Aftenposten's* headline is "Forest Conservation (in Tanzania) tops half a Billion", and continues; "as the Norwegian government announces its intention to spend NOK 100 mill on forest conservation every year over the next five years". (*Aftenposten*, April 22, 2008). *Dagbladet* presents criticisms of the Norwegian engagement to save the rain forest under the headline "Norwegian Idealism" (*Dagbladet*, January 25, 2008). The article quotes a professor who argues that:

It is great that Norway is putting effort into conservation of the rainforest (...). But simplified images of causes and solutions can make the effort to reduce deforestation less effective.

In another *Dagbladet* article, a professor claims that the Prime Minister was talking "Deforestation Rubbish" (January 12, 2008) in his New Year's speech.

Occasionally articles also focus on the forests in Norway in connection with climate change. Under the headline "Announces Major Forest Protection" the Minister of the Environment, Erik Solheim, is reported to be passively relying on voluntary initiatives, as well as the engagement of the State Forest Company (Statskog) (*Aftenposten*, January 13, 2008). In a critical article in *Dagbladet*, the lack of engagement to protect domestic forests in a climate change context is highlighted in the following hard-hitting headline: "Slaughtering Norwegian Fire Preparedness" (*Dagbladet*, June 26, 2008). This critical stance is also seen in *Aftenposten*, though under a less sensational headline: "Climate Change increases Forest Fire Danger" (*Aftenposten*, June 13, 2008). There are, however, also occasional articles on positive effects of climate change, such as articles about politicians on Greenland looking forward to a warmer climate.

3.7.4 Western Policy Developments

The Norwegian press frequently reports on Western policy developments, and the business press in particular focuses extensively on the US and the UK. While press reporting on climate in the South has remained predominantly problem-focused, climate reporting with a Western focus is, by comparison, much more policy-oriented.

An example of *Dagens Næringsliv's* UK focus is an extensive article on what British politicians have accomplished: "Better Safe than Sorry. British politicians and environmental experts have worked for many years to adopt to the climate changes. Norway has barely started". (*DN*, February 16, 2008). "Climate Crash in Congress" (*DN*, June 09, 2008), the "Battle over being green" (*DN*, May 15, 2008) are other headlines, this time focusing on the US. *DN* also reports that the Rockefellers want a green Exxon: "The Rockefeller family are rebelling against oil giant ExxonMobil" (*DN*, May 27, 2008).

In addition to covering policy in the US and the UK the press also looks to the rest of Europe. In the article "Look to Sweden", *Dagens Næringsliv* reports on Sweden's superiority in handling climate change issues compared with Norway. The article argues that rather than flying over to California and talking to Arnold Schwarzenegger, Erik Solheim, the Norwegian Minister of the Environment, can just cross the border to Sweden (*DN*, February 27, 2008). The *DN* article follows a *Dagbladet* article lamenting the fact that California Governor Arnold Schwarzenegger refused to meet Erik Solheim (*Dagbladet*, January 22, 2008). *Aftenposten*

focuses mainly on Norwegian politics but also has some stories from the EU or from individual European countries in which it is following climate and energy issues, as evidence by the headline: “Italy wants Nuclear Power” (*Aftenposten*, May 24, 2008).

The Norwegian press also occasionally reports on Australian issues, as illustrated by *Dagens Næringsliv*'s article “Hot Barbeque Party”, featuring the tougher climate policy of the new Australian government (*DN*, February 29, 2008).

3.7.5 Climate Challenges to Business

Several press articles emphasise the climate challenge to business. This theme is obviously particularly prominent in the business newspaper, but also features in *Dagbladet* and *Aftenposten*. Some examples include: reports on Norwegian business taking climate initiatives; articles reporting on requests from industry for clear policy guidelines; and articles reporting on left-wing politicians asking the petroleum industry to use some of its wealth to develop CO₂ sequestration.

Industrial climate initiatives seemingly flourish in Norwegian industry. *Aftenposten* reports on companies coming together in a *Climate Club* to take joint climate action (*Aftenposten*, February 04, 2008). *Dagens Næringsliv* also reports on this initiative under the headline “Exclusive Club to Save the Climate” (*DN*, April 17, 2008). In “Cleaner on Rape” (*DN*, February 14, 2008), the Norwegian Shipping Association calls for concrete action in the form of broad international cooperation to solve environmental problems faced by the industry.

However, the press remains ambiguous with respect to how much industry should be trusted. While admitting that business is part of the solution, *Aftenposten* reports that “Legislation is Necessary” (*Aftenposten*, January 05, 2008). In contrast, *Dagens Næringsliv* focuses on collaborative engagement between the state and industry. Under the headline “New Technologies”, Jeffrey Sachs is cited as saying that the world needs global public-private cooperation on technological development (*DN*, February 25, 2008).

As a result of its size, the Norwegian petroleum industry is, not surprisingly, a major target for media debate. *Dagbladet* refers to the Socialist Left Party (SV) asking the oil industry to take responsibility for its actions: “The oil companies, led by StatoilHydro, are making tons of money destroying the planet’s climate. Consequently, they should also foot the bill for removing CO₂ pollution from the Norwegian continental shelf” (*Dagbladet*, June 30, 2008). However, in the article “Norway does not have to Apologize”, *Aftenposten* cites the Nobel Peace Prize Winner Rajendra Kumar Pachauri from IPCC, who is not in total agreement with the Socialist Left Party position (*Aftenposten*, January 07, 2008).

3.7.6 Climate Change Lifestyle Issues and Health Effects

The press also displays some interest in the lifestyle effects of global warming. On the positive side, it is reported that “ethical tourism” is becoming more popular. On the negative side, the press reports on negative health effects from global warming. The press also reports on the climate challenge leading to a need for greater use of public transport.

In a consoling mood, *Aftenposten* reports that Norwegians, who live far to the north, still deserve to go on holiday: “Norwegians Should not Stop Travelling” (*Aftenposten*, January 09,

2008). In fact, a well known writer and travel guide says that the knowledge gained from meeting people from different cultures is more valuable than the benefits of not flying. The most important premise for combatting pollution is fighting poverty, and this can best be done by travelling to poor areas of the world and spending as much money as possible in local communities. In addition, *Dagbladet*, in an article entitled “Ethical Tourism is Good Business” (*Dagbladet*, April 08, 2008), also reports on climate challenges as a business opportunity.

Nevertheless, the tone is generally pessimistic with respect to lifestyle issues. *Aftenposten* envisages large scale migration following dramatic climate change: “Increasing extreme weather like drought, heavy rain and flooding forces people on the run” (*Aftenposten*, June 21, 2008). In *Dagbladet*, the leader of the Socialist Left Party projects a scenario of “Our Time’s Large Migration” and writes:

Because of climate change, millions of people are losing the basis for their existence and natural disasters are turning their everyday life upside down. (*Dagbladet*, February 12, 2008).

The press also reports on the changing climate leading to new types of conflicts. *Dagens Næringsliv* (March 12, 2008) argues that “New Climate Involves more Tension”. *Dagbladet* presents articles arguing that more and more migrants will move north to Norway: “The World Moves North “ (*Dagbladet*, June 18, 2008).

The press also links the climate challenge to more trivial matters. For instance an article on damage to property under the headline “Concern about Norwegian Property: Humidity Damages and Climate Change - Status on Mould Fungus”. (*Aftenposten*, May 24, 2008). However, the press also reports on warmer weather giving rise to the spread of new diseases (*DN*, February 20, 2008).

The press also covers rising fuel prices. This is not necessarily critical, however. *Dagens Næringsliv* quotes the Finance Minister: “Most people can afford the high fuel prices,” says Finance Minister and SV leader Kristin Halvorsen. She believes that people are more concerned about climate changes than rising fuel prices” (*DN*, June 07, 2008).

The most dramatic front page in *Dagbladet* concerning the climate, however, was dedicated to nature: “Migratory Birds let Norway Down” (*Dagbladet*, April 22, 2008). The article refers to a report from British scientists who are sounding the alarm as increasing numbers of birds are no longer flying to Europe. So, obviously, not all species are moving north....

3.7.7 Government Policy

The Norwegian press presents several challenges to government policy, ranging from criticism of the far from satisfactory Norwegian records on CO₂ emissions to a demand for a more climate-friendly transport policy, as well as for a “Ministry of Climate”.

The criticism of Norway's record on CO₂ emissions features in a *Dagbladet* editorial on "Execrable Record" (May 15, 2008). The article points out that:

Never before has Norway emitted more climate gases during one single year According to Statistics Norway (...). the record of 2007 may be beaten as early as in 2008".

However, the criticism of the significant increase in Norwegian CO₂ emissions – a large part of which comes from petroleum production - is not without exceptions. As mentioned previously, the Nobel Peace Prize Laureate Rajendra Kumar Pachauri is quoted in *Aftenposten* (taken from an interview in *Stavanger Aftenblad*) as saying: "The world still needs oil, thus you need not apologize". The headline is plain and simple: "Norway does not have to Apologize" (*Aftenposten*, January 07, 2008).

Press reports on government policy in Norway also include observations on taxation. *Dagens Næringsliv* features an article with the headline: "What are Green Taxes" (March 08, 2008), in which researcher Gunnar Eskeland is quoted as saying:

Regular taxes are harmful, green taxes are useful. A lot of politicians and environmental activists claim that the taxation system must become more environmentally friendly, following the Polluter Pays Principle.

The media debate on government policy also includes viewpoints on political organisation. In an article in *Aftenposten*, "Norway needs a Ministry of Climate Issues" (March 05, 2008), former Minister of the Environment Børge Brende calls for a new Ministry for Climate and Environmental Issues. He argues that, compared to Denmark, for instance, Norway is lagging behind. *Aftenposten* points out that the sitting government is mostly concerned with what we can do abroad, whereas ex-politicians are presenting possible domestic solutions.

The climate debate in the Norwegian media also encompasses the EU debate. In "Norway's Part in the Climate Battle" (*DN*, March 14, 2008) *Dagens Næringsliv* quotes Frederic Hauge, who points out that "when the EU decides on what actions to take to reach its ambitious climate goals, Norway stands on the outside". Like many policymakers, Hauge finds it troublesome that Norway is not part of the EU and has no influence on decisions that, strongly affect the country nevertheless.

3.7.8 Concern Regarding Natural Resources

Given the important role of fishing in the Norwegian economy, it comes as little surprise that the Norwegian press is concerned with the effects of climate change on this natural resource. However, attention is also paid to the more general effects of climate change on natural resources.

A UN report pointing out that fish stocks can collapse because of the changing climate is reported on both in *Aftenposten* (February 24, 2008) and *Dagbladet* (February 24, 2008). The wording is quite dramatic - Achim Steiner, leader of UNEP, is quoted as saying:

During the coming decades, fish stocks may collapse several places in the world due to global warming, pollution and overfishing (...). You may have put the last nail in the coffin of the world's fishing industry.

However, even though the report highlights issues that may have a significant effect on the Norwegian fishing industry, both newspapers only cover the report in brief and do not follow up with in-depth articles.

With respect to resources more generally, the business paper features *Scarce Resources* (DN 30.06), an article written by Jeffrey Sachs. In line with the general orientation of the business newspaper, the focus is on economics and growth, and what action businesses and governments can take to meet growing demand for increasingly scarce resources. Sachs makes the observation that: “History has proven that the lack of resources slows down economic growth. The world needs a new growth strategy. The climate negotiations are a good starting point”.

Dagbladet features a long article on how the Norwegian constitution can do more to protect endangered species. In an article entitled “The Way of the Law”, Tormod Vaaland Burkey, who has a PhD. in Ecology and Population Dynamics, claims that: “We still lack legislation on nature and the environment which is tough enough to give adequate protection of species” (*Dagbladet*, June 30, 2008). The article presents the author’s claim that Norway lacks legislation on nature and the environment that gives adequate protection to endangered species. He particularly criticises the lack of follow-up of a call for new legislation.

3.8 Reflections and Conclusions

The articles in the study sample convey an intriguing variety of opinions and perspectives on climate change. The broad coverage of the debate initiated by the Progress Party indicates that the extensive delay of the effects of global warming make it difficult for people to grasp, and easily leads to denial when triggered by robust populist argumentation. Nevertheless, there is sufficient scope for critical journalism to unmask the Norwegian discrepancy between pumping out large quantities of oil and gas, resulting in a strong increase in CO₂ emissions on the one hand, and sustaining a strong profile on climate policy on the other.

A study by Hovden and Lindseth (2004) on Norwegian climate policy points out that there has been a major shift in Norwegian climate policy during the 1990s. The dominant discourse in 1989 focused on a stabilisation of domestic CO₂ emissions. The dominant discourse in the late 1990s and early 2000s focused much more on global strategies, where Norway undertakes a large part of its CO₂ reductions abroad.

In spite of some concerns regarding health effects and lifestyle issues, the domestic implications of climate change are not depicted as dramatic. The exception, perhaps being concern with the struggle over Arctic resources as the area becomes more readily available, following global warming. The focus in the Norwegian media is therefore primarily on climate issues abroad and on how to deal with issues such as African agriculture and the preservation of Latin American rain forests.

There are interesting differences between the Norwegian newspapers with respect to coverage of global warming and climate change. The debate over climate fundamentals in our sample is dominated by the establishment daily *Aftenposten*, featuring 11 out of 33 articles on this theme (Table 3.4). The two other newspapers have given this debate far less coverage. The business daily, *Dagens Næringsliv*, hardly gives it any coverage at all, giving priority instead to articles discussing policy measures (almost half of the sample), indicating a much more

pragmatic orientation, which is perhaps not surprising for a business newspaper. In all three newspapers, global consequences are more reported on than domestic ones, indicating, perhaps, a Norwegian propensity to associate climate issues with events abroad.

Table 3.4: Themes:

	Domestic Consequences	Global Consequences	Policy Measures	Debating Change/ Science Basis	Climate Natural	Initiatives/ Solutions
Dagbladet: Articles are more or less spread even over the different topics	7 articles	9 articles	8 articles	3 articles		6 articles
Dagens Næringsliv: Articles on policy measures dominate the topics	5 articles	7 articles	15 articles	0 articles		6 articles
Aftenposten: Mostly articles on global consequences. Newspaper with the most articles debating climate change	6 articles	10 articles	4 articles	11 articles		2 articles
Sum	18	26	27	14		14

The media analysis undertaken in this study leaves us with the impression of a nation characterized by strong elements of escapism and cognitive dissonance. Norway escapes the climate crisis in two ways. Firstly, by raising doubts on the issue. The articles in the media debate initiated by the Progress Party imply that the IPCC is wrong and that climate disaster is far from imminent. Secondly, if the climate crisis is acknowledged, any climate measures are put in place abroad. Norway appears too deeply tied up in its extravagant consumption and hedonistic lifestyle to be able to voluntarily alter behaviour on home turf. According to *Aftenposten's* climate specialist, the country could have done much more, had it wanted. Norway, he claims, is a state rich enough to do something.

3.9 References

Hovden, E & Lindseth, G (2004). *Discourses in Norwegian climate policy: National action or thinking globally* Political Studies, 52.

Rydhaug, Marianne (2006). *Some like it hot Konstruksjon av kunnskap om klimaendringer I norske aviser*; Norsk medietidsskrift, 03 (also available in Norwegian)

4.0 Chinese Newspapers Coverage of Climate Change: The Harmonious Tone set by Government

Jin Wang

4.1 Introduction

The landscape in China is changing quickly, both substantively speaking and as a metaphor for almost everything. It is certainly the case in terms of public awareness of and public discourse about climate change. The change in both style and substance is clearly seen if you go to the official website of the Department of Climate Change¹⁶, a division within the all-powerful National Development and Reform Commission (NDRC)¹⁷, and read the speeches made by the heads of the Chinese delegations to the yearly Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC), since 1999 (COP5 Bonn, the earliest speech made available at the website) all the way to 2008 (COP14 Poznan).

The 1999 statement is a rather terse expression of the official Chinese position on global climate change, namely that current global warming is caused by the developed countries over a long period of high emissions, China is a developing country and is suffering from the consequences of global warming, the developed countries should take the responsibilities to reduce their own emissions and help the developing countries with funding and technology, China will do what it can to slow the increase of emission but cannot commit to mandatory emission reduction because “fighting poverty, growing the economy to meet the basic needs of its people” are China’s current priorities (Liu 1999).

The 2008 statement is very different. It starts with a set of numbers to demonstrate China’s remarkable achievements in emission control: a 3.66% percent drop in energy intensity per unit GDP from 2006 to 2007, another 3.46% drop from January to September in 2008, avoiding 335 million tons of CO2 emission from 2006 to 2007 alone, and the total amount of renewable energy produced in 2007 means about 500 million tons of CO2 emission avoided. Then it goes on to say that although China is facing the multiple challenges of fighting poverty, improving people’s living standard, and adapting to climate change, China is committed to its efforts to change the development model, to build a low carbon economy, and strike for the “win-win” outcome of economic development and protecting global climate at the same time. It ends with a call for the developed countries to do more to reduce their own emissions and to help the developing world with funding, technology, and capacity building, which is quite consistent throughout the statements made by China for the past

¹⁶ <http://www.ccchina.gov.cn/en/index.asp>

¹⁷ Some refer to it as the “mini-cabinet” of the Chinese government.

decade. But it also goes on to call on the developing countries, with help from the developed countries, to take effective measures toward mitigation and adaptation (Xie 2008).

4.2 Focus and Methodology

This study examines the magnitude and nature of climate change coverage in China through a content analysis of three newspapers: *the People's Daily*, *the Southern Daily*, and *the Economic Daily*. *The People's Daily* is unequivocally the no. 1 national newspaper because it is *the* official newspaper of the Chinese Communist Party (CCP) and the central government. It is the party and the government's newspaper and news media of choice for policy announcements and official statements. *The Economic Daily* was founded on January 1, 1983, at the beginning of the reform era, by the State Council of the Chinese government. It is under the direct control of the Propaganda Department of the CCP and an important channel through which the CCP and the government announce their economic policies. In other words, an obvious choice of a business newspaper in China. *The Southern Daily* is the official newspaper of the Guangdong provincial government and operates under the directives of the Propaganda Department of the CCP's Guangdong Provincial Committee. In order to be more inclusive, *Southern Metropolitan News* was originally considered as the regional and more populist newspaper to make up the three major sources for the Chinese case study, but it turned out that Southern Metropolitan News was not part of the national newspaper database, making it impossible for our keyword-search-based methodology to work.

All editions of these three newspapers in the first half of 2008 (January to June) were subjected to various levels of content analysis. The first level of analysis was a search for the key words "climate change" and "global warming." Next, all articles containing these key words were identified and a sample of articles selected for further analysis. Articles containing key words but which were considered peripheral to the issue were discarded. Finally, the selected articles were subjected to deeper analysis in an attempt to determine the dominant trends in discourses and the framing of issues of climate change and global warming.

A total of 100 articles were selected from the three newspapers. The articles were extracted from the online database, "National Important Newspaper Full Text Database." The search resulted in 187 articles from the *People's Daily*, 57 articles from the *Economic Daily*, and 18 articles from the *Southern Daily*. Out of the 187 articles from the *People's Daily* and 57 articles from the *Economic Daily*, 41 articles were randomly selected from each newspaper. All 18 articles resulted from the searches in the *Southern Daily* were included. These make up the 100 articles that we would use as the sample for our in-depth analysis.

The articles are supplemented with an interview with the editor of the environment and science page at a major newspaper in Guangzhou.

4.3 The Media in China

While the interaction between the media and the public in any society is a complex dynamic process to study, to outside observers, the dynamics of the interaction among the government, the media and the public in China could be particularly puzzling. It is not this article's intention to directly address this puzzle, instead this study is rather narrowly focused on Chinese media's treatment of the climate change and global warming issues. But even to take

on this rather limited task requires some basic understanding of how the government, the media, and the public interact in today's China. A few simple facts might help to shed some light on the issue.

First, although it is fair to say that the Propaganda Department (PD) of the Chinese Communist Party (CCP) at both the central and local level still closely supervise all the media operations inside China, from broadcast media, to printed media, to the internet, they are much more emphatic and effective in dictating what not to report rather than what ought to be reported.

Second, although generally operating within the confines laid down by the PD's injunctions against certain things, the Chinese media today is driven by commercial interest and compete in a free market place almost as much as the media in the West. The result, therefore, is the same mixture of the official, the shocking, the sentimental, and the fringe, etc. occupying the TV channels, the newspapers, and the blogosphere, just as you will find in any western media.

Journalists define their profession in no different terms from their counterparts in the West, and subscribe to the same philosophy that their duty to the society is to report and inform. The lack of extensive investigative reporting in the Chinese media is more due to the constraints than any lack of interest. The sudden appearance of 24-hour, around-the-clock, live reporting on many of the news channels immediately after the earthquake in May 2009 that turned the natural disaster into the biggest national media event of the year is a good indication that journalism in China, as a profession, operates with the same logic as journalism everywhere.

Third, over the past thirty years of steady opening of the economy and society, the overall Chinese society has become much more apolitical, the business people have become much more focused on profits than anything else, and the general public have become much more pragmatic than ideological in their thinking and living. These are possible because politics and the government have largely withdrawn to the background of people's everyday lives. People searching for information usually turn to a wide range of media sources, and would have to decide by themselves what is more credible, again, not unlike the same predicament people face in the West.

4.4 Climate Change Content in Newspapers

Table 1 shows the results of the keyword search for the three newspapers. *The People's Daily* has the largest number of articles on climate change and global warming. Climate change also appears far more frequently than global warming. The same pattern holds for the *Economic Daily* and the *Southern Daily* too. This potentially could be due to the fact that the Chinese word for "climate change," which is "*qi hou bian hua*", has a much wider application partly because "climate" and "change" in Chinese, as in English, are words with quite broad meanings. For example, "climate" is not only used to refer to the natural weather pattern on the earth, it can be also used to refer to "social climate," "political climate," or "financial climate." "Global warming," on the other hand, has a much more limited connotation, and is unlikely to be used metaphorically in a totally unrelated context.

Table 4.1: Word count

		Climate change	Global Warming	Most relevant articles
Total	<i>People's Daily</i>	451	54	187
	<i>Economic Daily</i>	121	11	57
	<i>Southern Daily</i>	16	4	18

4.5 Sources

The majority of the articles come from government or official sources in the Chinese case. The *People's Daily* relies most heavily on government or official sources—32 out of 41 stories are of this kind. The *Economic Daily* uses about half as much as the *People's Daily* does in terms of government or official sources in their stories, and about 50% of its stories come from company or business sources.

These obviously leave very little room in either newspaper for anything else, be it scientific, international, local or NGO, or ordinary citizen as sources of stories. Only the *Southern Daily* uses more scientific or academic sources than government or official sources. And the *Southern Daily* is the only newspaper that actually has some stories from local NGO or civic association sources.

Table 4.2: Sources of the stories

	Politician/ Public Official	Scientific/ Academic Community	Company/ Business	Int'l Actors	Local NGO/ Civil Soc	Ordinary Individual
<i>People's Daily</i>	32	4	3	1	0	1
<i>Economic Daily</i>	16	2	20	3	0	0
<i>Southern Daily</i>	2	5	6	2	3	0
Total	50	11	29	6	3	1

4.6 Type of Stories

Table 4.3: Story type

	Routinized	Enterprise	Editorial	Opinion/ commentary
<i>People's Daily</i>	25	0	10	4
<i>Economic Daily</i>	20	7	6	8
<i>Southern Daily</i>	4	0	0	7
Total	49	7	16	19

Given the fact that national newspapers, especially those directly run by the government and serve as the mouthpiece of the CCP and the government, operate in a highly routinized way, it is not surprising that routinized stories dominate the pictures for both the *People's Daily* and the *Economic Daily*. For the *People's Daily*, 25 out of 41 stories are of this type, which mostly are about national leaders' daily activities—meetings they preside, speeches they give, or foreign dignitaries they meet. If any of them has any mention of climate change or global warming, it will be mentioned in the story too and therefore shows up in the search.

The *Economic Daily* seems to operate in the same mode. A total of 20 stories are of the routinized type, out of 41. It does have 7 articles about businesses, which none of the other two newspapers has, because the *Economic Daily*, after all, is supposed to be about economy and business. The two national newspapers have roughly the same number of editorials and op-ed articles. The Southern Daily has a higher percentage of op-ed type of articles, but that's probably because we have fewer articles from the Southern Daily.

Prominence

Since the majority of the stories are about national leaders' activities—meetings, speeches, etc., they are obliged by protocol to be placed prominently on the newspapers. Out of the 41 stories from the *People's Daily*, there are 10, about a quarter of them, are front page stories. As will be explained later in the paper, these stories, most of them would include a single, passing mention of climate change or global warming, but because they are uttered by the top national leaders, they are placed quite prominently by association. Actually, this could be a metaphor for generally how things work in China. For any issue to gain prominence, the only sure way is to get it somehow associated with the top national leaders. Whatever they say is guaranteed to be reported by the media and communicated to the public.

On the other hand, other types of stories seem not to have a clear pattern of placement or prominence across the three newspapers. Some of them are much longer than others, which is an indication of the importance and prominence of the pieces. Some of them are rather short, and can be placed anywhere in the newspaper.

4.7 Core Themes

Based on the review of the randomly selected 100 articles on climate change and global warming from three newspapers, four broad themes emerge.

4.7.1 Climate Change and Chinese International Relations.

There are 29 articles that belong to this category. Most of them are reports of Chinese national leaders meeting with foreign leaders. Most of the time, climate change and global warming were mentioned in a passing manner. But it is remarkable that almost in every meeting with foreign leaders, no matter how marginal the issues of climate change and global warming were to the central issues under discussion, climate change and global warming were mentioned, and the mentioning of these terms were picked up by the national media,

Of course, the way such reports work in China is that the central government's communication office would issue an official news release to the media, usually through the Xinhua News Agency, and then it would get reported by newspapers and broadcast media all over the country. Most of the time, the media would simply publish the press release just as it is, with little analysis or in-depth reporting beyond the official words. So what we see in the newspapers is almost exactly what the government says.

The fact that the government want the public and the world to know that in almost every single meeting with foreign leaders, no matter it is when the president or the premier visiting a foreign country or it is when they host a foreign head of state, climate change and global warming are always mentioned, says plenty about the government's position and posture on the issues, i.e., climate change and global warming are very high on China's national policy agenda.

This article on *People's Daily* on June 23 is a good illustration of how such a report reads like. The title of the article is “President HU Jingtao meeting with Greek President.” It begins with the lead paragraph stating that “President HU Jingtao met with the Greek President at the Great Meeting Hall in the afternoon on the 23rd. The two sides reached broad consensus on further exchange and collaborations, and further develop the strategic partnership between the two countries.”

The second paragraph is on what President HU said, which is rather formal: bilateral relationship has been good, the exchanges are quite frequent, both sides have trust in each other, trade is growing, etc. Of course, any bilateral talk has to mention Taiwan and Tibet, so it ends by saying: “China appreciate Greece’s ‘One China’ policy, and its valuable support to China on the issues of anti ‘Taiwan Independence’ and ‘Tibet Independence’.”

Then one paragraph on what the Greek president said: both Greece and China have ancient civilizations, the two countries had a long history of friendship. Greece appreciates China’s unique and active role in international and regional affairs, and Greece supports the further development of Europe-China relations.

The next paragraph lists the four areas President HU said that the two sides could further cooperate: (1) intergovernmental exchange, (2) trade, (3) cultural exchange, and (4) “Closer international cooperation for mutual benefits. China is willing to continue the communication and discussion with Greece on important issues as the UN reform, *climate change* (italics added), environmental protection, sustainable development, etc. ...”

This kind of passing reference to “climate change” is typical for this whole category of reports. It is the only time that the term “climate change” appeared in the whole story, exactly within such a context. The report goes on to include what the two presidents had said about the upcoming Olympics, the fact that Olympic Games originated in Greece and Greece’s support for the Beijing Olympics, etc.

As indicated in the introduction, the *People's Daily* is the official mouthpiece of the CCP and the Chinese government. Although they do carry “light stuff” in other sections, such reports on the official activities of the top government leaders are all about business. They are highly stylized, follow a set format consistently, and mostly an expression of the official line. Against this backdrop, the inclusion of “climate change” as part of the stable terms that have to be included in any such official statements, which in the past included “Taiwan,” “Tibet,” “non-interference,” “economic development,” etc. is highly significant.

4.7.2 Global warming, Climate Change and Natural Disasters

There are 11 articles under this category. Most of the stories are about the snow storm that paralyzed the southern half of the country, which usually does not snow much, in January 2008. For example, this story on *People's Daily* on February 9th, the title is: “Some Countries Continue to Express Their Condolences to the Snow Storm Disaster in Part of China.”

It quoted the director of the UN Environmental Programme, meeting with the Chinese representative to the agency, as saying:

Such abnormal snow disasters are related to global climate change, it happened in China this time, next time it might happen in some other countries, therefore it is a global challenge, needing the whole world to respond together. The UN Environmental Programme is willing to strengthen the exchange and cooperation with China on the issue of climate change.

The rest of the story is about various foreign leaders sending their condolences and praising the Chinese government's effective disaster relief efforts. It is rather short, about 600 words.

Another story is much longer, about 3,500 words, also from *People's Daily*, on January 22. It is also about extreme weather, but the main story is about China's achievement in weather forecasting and disaster prevention. The only time it mentioned global warming is at the beginning, in the first paragraph, it says: "From 2002 to 2007, against the background of global warming, China's weather went to extremes frequently, but the death toll caused by weather related disasters decreased 31% compared to the 5-year period before."

The snowstorm in January 2008 did generate a lot of discussion and increased the awareness of the connection between extreme weathers and climate change. Most of the news reports touching on the topics though mentioned the connection in a rather matter-of-fact manner, without much elaboration. Given the intrinsic complexity of the problem—extremely complicated weather models, multi-disciplinary science research over extended time and areas, etc.—it is quite interesting that the connection between global warming and local extreme weathers is presented in such simple terms. Judging from ordinary readers on the streets, it seems they do not question the validity of such a connection either. This raises some interesting questions regarding the public's attitudes toward global warming and climate change. We shall return to this later in our interpretations.

4.7.3 Energy Conservation and Emission Reduction

There are 35 articles in this category. The majority of them are reports of meetings, speeches, tours of various national leaders or other government officials. Some are reports on how a particular industry, company, city or province, is dealing with the issue of energy conservation and emission reduction. The tone is always positive, and the picture given is generally encouraging.

For example, this report on *Economic Daily* on March 9th, titled: "Spokesman of NCDR: This Year China Will Push Energy Conservation and Emission Reduction with Even Stronger Force." It's less than 1000 words. Most of it is about the government's plan and policies in increasing energy efficiency, conservation, control pollutions, and water treatment.

After the lead paragraph, it first reported on the government's plan to close small power plants to a total of 13 million kilowatts; to close cement, steel, and iron making plants using backward technologies to totals of 50 million tons, 6 million tons, and 14 million tons respectively; and to ensure the reemployment of the workers from these plants.

Then it spent a long paragraph detailing the government's new policy initiatives which include price differentials, tax policies, and financial policies to help energy conservation and emission reduction, price differentials for water usage, developing a recycling economy, push for clean production, and an ambitious plan to control and prevent water pollution, and build water treatment facilities to collect and treat all waste water in 36 big cities. Toward the end of this long list, it says: "... (we need to) implement the government's policy for responses to climate change, improve the ability to respond and adapt to climate change ..."

This is a good example for how generally climate change and global warming issues are framed: the government is taking a pro-active role in pushing forward energy conservation and emission reduction, but what it meant by "emission reduction" is much broader than simply reducing the emission of green-house gases (GHG). It means the reduction of the whole spectrum of pollutants that pollute the air, the water, and the soil. The Chinese government-led campaign of "energy conservation and emission reduction", therefore, is a multi-front effort to achieve energy efficiency, environmental protection, and climate change mitigation and adaptation all at the same time.

4.7.4 Climate Change and Weather Forecasts

There are 19 articles of this kind. Among them, 5 are about international cooperation in the area of weather forecasts and/or climate change; 5 are on government policies about environmental protection; 4 are directly about climate change; 3 are on related science and technology; 2 are about how to conserve energy and protect the environment.

One article on *Economic Daily* on June 17th is titled: "It's everyone's responsibility to reduce carbon emission." It is set against the UN Secretary General's statement on the World Environment Day on June 5th. After it quoted Mr. Ban as saying that it is everyone's responsibility to change behavior, to reduce carbon footprint, it went on to give a very succinct summary of the issue:

Research indicates, the emission of CO₂ and other greenhouse gases is the main reason for global climate change. In the foreseeable future, climate change caused by the emission of greenhouse gases won't be reversed, it will have tremendous impacts on world environment, economy, and politics. According to the latest report published by the International Energy Agency, by 2010 the global temperature will increase by 6 degrees Celsius. To reach the goal of reducing global carbon emission by 50% by 2030, the investment needed will be as high as 45 billion US dollars.¹⁸

It went on to say that global climate change is one of the most serious challenges facing human societies today. Our choice now not only will affect people's lives today, but also our offspring's. It cited the joint report by UNEP and World Tourism Organization on how to

¹⁸ There are several potential inaccuracies here. First, according to the World Energy Outlook 2008 by IEA which the reporter is obviously referring to, "On current trends, energy-related emissions of carbon-dioxide (CO₂) and other greenhouse gases will rise inexorably, pushing up average global temperature by as much as 6°C in the long term." (p. 37) It doesn't say that the global temperature will increase by 6°C by 2010. Second, also according to the World Energy Outlook 2008, "The 550 Policy Scenario requires \$4.1 trillion more investment in total between 2010 and 2030 than in the Reference Scenario — equal on average to 0.24% of annual world GDP." (p. 48) And for 450 Policy Scenario, "An additional \$2.4 trillion needs to be invested in low- or zero-carbon power-generation capacity and an additional \$2.7 trillion invested in more energy-efficient equipment, appliances and buildings than in the 550 Policy Scenario." (p. 49) Anyway, the "45 billion US dollars" figure given by the reporter here seems rather low and is most likely to be incorrect.

reduce carbon footprint in everyday life: things like using traditional toothbrushes instead of electronic ones, using a traditional spring-wound alarm clock instead of an electronic alarm clock, turning off computer when not used, hanging up clothes to be dried by the sun instead of using a dryer, etc.

It concluded by saying: “Human beings have only one earth. According to experts, there are 6.7 billion people on earth, we can make the world a greener and better place by changing our own life and behaviour, adopting green and environment-friendly habits.”

Despite the inaccuracies at the beginning of the piece, this article is one of the most clearly directed at explaining the connections between human behavior and climate change.

Another article on *the Southern Daily* published on March 7th is about challenges facing weather forecasters in light of more frequent extreme weathers. It quoted the Director of National Meteorology Bureau, Mr. Zheng Guoguang, in explaining the apparent warming trend over the past century in China, especially northern China. But he also said exactly how much of the warming was due to human activities would require more scientific studies. “It cannot be simply said that 90% is caused by human activities, and 10% by nature. There is some scientific uncertainty in this.”

The rest of the article is about Mr. Zheng and his colleagues’ assessment of the accuracy of China’s short-term weather forecast—quite accurate, according to them, on par with the international standard. It also included several suggestions made by various experts on the need to create a free, public weather channel, and the need to improve the infrastructure’s ability to withstand severe weathers, such as the power grid’s ability to withstand snow and ice storms.

4.8 Reflections and Conclusions

In order to put the above case studies in perspective, it is important to understand how climate change issues have gained prominence in Chinese national politics. The Chinese government’s position on climate change in recent years has a lot to do with the changed economic situation in China. The soaring demand for energy was driven by the rapidly growing economic as well as the rapidly increasing household consumption. The government has to respond to the increasing demand for energy with a multipronged strategy in order to achieve energy efficiency and energy security. Fighting global warming and climate change meshes very well with the national energy strategy.

The public, meanwhile, became well aware of the connection between greenhouse gasses (GHG) and global warming partly due to the government-led campaign to increase the awareness. But how the public will react to the looming crisis, especially how much of the awareness might be translated into action, and what action, is a different question.

4.8.1 The Chinese Government’s Position on Climate Change

As the analyses above revealed, the Chinese government’s position on climate change and global warming is clearly reflected in the media. As clearly indicated by the various official statements made by the national leaders at various occasions, the Chinese leadership is definitely talking the talk of climate change and global warming on the international stage.

The fact that “climate change” has ascended to become one of the must-say things at the top diplomatic level, between the heads of states, is quite remarkable.

At the policy level, however, the substance mainly lies with the national campaign of “energy conservation and emission reduction.” As mentioned earlier, “emission reduction” in this case includes the full spectrum of pollution control, not just GHG emission. Energy conservation, on the other hand, is a broad, umbrella concept under which the central government hopes to improve energy efficiency, expand the use of renewable energy, and gain energy security.

The metamorphosis occurred over the past 10 years regarding the Chinese government’s role and attitude toward global climate change politics coincides with the rapid rise of energy demand driven by accelerated economic and social development during the first decade of this century. As a result of the tremendous increase in the demand of energy over the past 10 years, China had to build power plants, most of them coal-fired power plants, at an unprecedented pace to power the factories, the shopping malls, and the apartments. This in turn resulted in the quick increase of China’s GHG emissions over the past 10 years too.

All in a sudden, China found itself surpassing Europe and Japan, quickly approaching the emission level of the US, and finally overtaking the US as the biggest emitter of GHG per year. The international pressure on China to reign in its emission has also increased in parallel. Being the no. 1 emitter itself cost China the comfort of hiding behind the then no. 1, the US, during Kyoto negotiations, and is now forced to take shelter under the second-best argument that China’s per capita emission level is still quite low, at only 1/4 of the US level.

But according to the latest projections, if China were to continue on the business-as-usual (BAU) trajectory, China’s per capita emission level will quickly approach the developed world level too by 2020 or 2030. This gives China a window of only 10-20 years to go on increasing its emission level before it loses another effective argument against emission control. Although per capita emission level is not the last thinkable concept to be employed at the international climate change negotiations, for example, the so-called “per capital accumulative emission convergence model” would give China until 2100 to reach the ultimate parity with the developed world in terms of per capital cumulative emission, indications are that China seems ready to take a different course.¹⁹

The combination of a relatively low per capita emission level and low energy efficiency of the economy provides China a unique opportunity. On the one hand, because of the low level of per capita emission, China still has a strong bargaining position on the international stage in the name of its right to economic development. On the other hand, the low energy efficiency relative to the developed countries point to a huge potential for China to find a sustainable development model by improving its energy efficiency to the level close to the developed countries such as Japan and the US.

The government’s earnest push starting in 2005 toward the ambitious target of reducing energy intensity by 20% by 2010, therefore, is not just a coincidence, and is not just because of the record high oil price. The Chinese Academy of Science recently published a report, for the first time, laid out yet another ambitious target of reducing energy intensity by 40-60% of

¹⁹ The per capita accumulative emission convergence model was recently proposed by Prof. HE Jiankun, a member of the Chinese delegation at COP14 Poznan meetings. But he seemed to go out of his way to stress that this was only proposed as a way to illustrate how to define equity in terms of globally shared responsibilities, not a realistic goal that China would be actively pursuing.

2005 level by 2020, is the latest evidence that the Chinese government has taken up the current position as part of a long-term strategy rather than a short-term reaction to any single event.

According to a recent report on China's climate change policy produced by researchers at the Stockholm Environment Institute (SEI) for the prime minister's office of Sweden, for China to meet such an ambitious target, namely a 20% cut in energy intensity every 5 years from 2005 to 2020, will be extremely challenging. No country in the world at China's current development level has ever achieved such reduction over such a short time. But, if China were to achieve it, the amount of GHG emission avoided will help the world to achieve the 2°C stabilization goal which otherwise will be almost impossible to achieve.

Given all these, it is no surprise that China has taken a decisively pro-active role at the global climate change negotiations in recent years, and the Chinese media is abuzz about everything "low-carbon," and everything solar.

4.8.2 Chinese Public's Perception and Attitude toward Climate Change

The public's perception and attitude are much more difficult to gauge through the media coverage of the issues, especially given the fact that all three newspapers chosen for this study are official newspapers of the CCP and the government which make them much more reliable a source for analyzing the government's positions than the public's.

It is noted earlier that most reports mention the connection between extreme weathers and global warming in a rather simple, unproblematic way. There are two possible interpretations. Based on the interview with the editor of the environment and science page at a major newspaper in Guangzhou, the newspaper suffers from a chronic shortage of reporters who have the training, knowledge, and interest in the field of environmental and science reporting. He used to have three reporters working for him, now he has none, and is having a hard time in recruiting qualified reporters.

If the situation is similar at other news organizations too, this could potentially explain why the reports on climate change and global warming related issues tend to be overly simplified and lack details. The example mentioned above where it quotes the World Energy Outlook 2008 by IEA as saying the average temperature will increase by 6°C by 2010, and the total cost of mitigation is likely to be 40 billion US dollars, indicates the potential for misunderstanding the issue at hand is high, even for an obviously enthused and compassionate reporter as the author appeared to be.

Meanwhile, as far as climate change and global warming reporting is concerned, the Chinese journalists and the Chinese media seem to be less inclined or feel less compelled than their Western counterparts to seek and include the opposite opinion of everything that they are reporting on, including scientific discoveries regarding climate change and global warming. It is a delicate balancing act of course. To balance it well, it requires the journalists themselves to have a rather good grasp of the subject matter, to be able to tell genuine scientific disagreement based on evidence from those who are simply against a certain scientific conclusion with no sound evidence. The habitual "throwing both sides into the ring" approach taken by many Western journalists might do more harm than good when they are trying to inform the public.

Climate change and global warming reporting by Chinese journalists seems to contain less conflicting views. This could be partly due to their still peculiar relationship with the government authorities, especially for those who are working on official newspapers. The government's unequivocal position on climate change seems to leave the journalist very little room to include the "contrarian's" view in their reporting.

It could also be due to the fact that scientists, especially natural scientists holding high academic positions, garner a great deal of credibility, respect and deference from the general public and the journalists alike. Their expertise and authorities are rarely openly challenged or contradicted by the journalists. Being a highly specialized and complex field of science, climate change and global warming lands squarely in the domain of the scientists.

The second possible interpretation is about the public. According to the interview with the environment and science page editor, his explanation for his difficulty in recruiting top reporters to work for his section is that the best reporters are all lured to work for the social news section because that is what the public want to read more. In his words: "when the public are more concerned with feeding themselves and feeding their families, it is hard to get them to think and care about something that might happen 50 years from now." Global warming is such something that might be horrible in 50 years, but people have to survive today in order to worry about 50 years later.

There is quite a bit suspicion and resentment among certain people that climate change and global warming are simply another ploy by the West to derail China's economic development. What they have experienced over the past 20-30 years are a steady improvement of living standard that allow them to live in a relatively hygienic environment, with electricity, running water, and reliable fuel for cooking. They simply cannot in any way imagine such improvement of their everyday lives could be threatening the survival of the world. And they resent the argument that the planet earth simply cannot afford to let every Chinese, 1.3 billion of them, live like the Americans, therefore, China has to change the current course to avert a planetary disaster. To them, what they are aspiring to achieve for themselves and for their children do not even come close to what the Americans have already had for decades.

From this perspective, it is not surprising either that the Chinese public's awareness of and attitude toward global warming are generally tied to the immediate relevance to their everyday lives. Considering the wide ranging diversity of the huge population, of course, such immediate relevance to their everyday lives could vary widely too. The wildly popular "Sun Jar"²⁰ on the internet would probably have much greater appeal to the young people and to the more environmentally conscious middle class than the migrant workers. For them, the government subsidized energy efficient light bulbs might be more appealing.

Maybe this is why, as reported on the Department of Climate's website, the government has just announced a plan to help marketing 100 million such energy efficient light bulbs in China this year. You can either justify the purchase by thinking how many tons of CO₂ emission will be avoided, or by counting how many pennies you will save on the light bulbs and on electricity. Either way, a ton of CO₂ emissions avoided is a ton of CO₂ that is not going to stay in the air and warm the planet, no matter how it is achieved.

²⁰ It is a glass jar that looks a lot like the ordinary candy jar with a solar panel inside that recharges the battery under sunlight and serves as a lamp at night.

Looking at it this way, the Chinese public's approach toward global warming and climate change is not that different from the rest of the world, namely, what moves them—in both attitude and behaviour—is what concerns them today. For those whose no. 1 concern today is what the world will be like in 50 years, they are going to devote their lives' work to the salvation of the planet. For those whose no. 1 concern today is how to make sure their children not suffer from the same hardship they had suffered, what appeals to them most is things big and small that might help them to achieve that task. The policy challenge then is how to make such things big and small more environmentally friendly, and more conducive to long-term sustainability than simply repeating the old mistakes that brought the world to such dire conditions we face today.

4.9 References

Liu, Jiang. 1999. *Speech at COP5 by the Head of the Chinese Delegation*. Retrieved at <http://www.ccchina.gov.cn/cn/NewsInfo.asp?NewsId=3876> on June 23, 2009.

Xie, Zhenhua. 2008. *Speech at COP14 by the Head of the Chinese Delegation*. Retrieved at <http://www.ccchina.gov.cn/cn/NewsInfo.asp?NewsId=15881> on June 23, 2009.

5.0 Comparing Climate Change Coverage: Reflections and Conclusions

Paddy Coulter and Atle Midttun

5.1 National Media Variations

Significant national variations in media coverage of climate change have been reported in the research literature. A distinctive feature of this study is that comparisons can be drawn between national press coverage in an emerging and a developing country with that of a rich industrialised country.

The words “climate change” and “global warming” get used interchangeably in popular parlance but in the national press of Ghana, Norway and China surveyed for this study “climate change” is much more frequently used than “global warming” in all three countries – as the tables below show, by a factor of roughly 8:1 in China, 5:1 in Ghana and 3:1 in Norway.

Table 5.1: Word and Article Count Ghana

		Climate Change	Global Warming
Total	<i>Daily Graphic</i>	133	23
	<i>Daily Guide</i>	49	14
	<i>B & FT</i>	51	10

Table 5.2: Word and Article Count Norway

		Climate Change	Global Warming
Total	<i>Aftenposten</i>	238	90
	<i>Dagbladet</i>	95	41
	<i>DN</i>	66	13

Table 5.3: Word and Article Count China

		Climate Change	Global Warming
Total	<i>People’s Daily</i>	451	54
	<i>Economic Daily</i>	121	11
	<i>Southern Daily</i>	16	4

Another common feature is that the elite newspaper in each country ran markedly more articles on the climate change issue than the other papers studied, in fact more than the popular and business papers combined. This is a worrying indicator that the issue has not got the level of traction with either the public or the business community which government rhetoric might suggest.

But that is largely where the commonality ends: in most other regards it is the divergences between the countries’ media coverage of the climate change issue that are the most striking features of the research findings. For example, it would appear from both the word counts

and the number of relevant newspaper articles that Ghana, with a total of 280 word mentions and 135 articles, lagged well behind both China and Norway with totals of 657 and 543 words respectively and 280 and 241 articles.

The national variations become even more marked when it comes to the type of sources used by newspapers for their climate change stories (see Table 5.4 below). In Ghana media information on climate change came overwhelmingly from foreign sources – this trend is most visible in the business paper’s coverage which in the period studied was entirely sourced from international organisations.

By contrast, in Norway the main source of information was the scientific/academic community with government and other political sources a close second and this combination of main sources held for all three papers. In China government and politicians accounted for roughly half the sources of stories, with businesses representing the second most important source. This domination of governmental sources was most obvious in the *People’s Daily* whereas the *Economic Times* had a more equal balance between business and governmental sources.

Only in Norway were non-governmental organisations or other civil society groups a significant source for newspaper articles; in Ghana and China they played a very marginal role in newspaper coverage and indeed in both these countries the views of ordinary citizens barely featured at all on this issue.

Table 5.4: Type of Sources Ghana

	Politician/ Public Official	Scientific/ Academic Community	Company / Business	Int’l. Actors	Community Leaders	Local NGO/ Civil Soc	Ordinary Individual
<i>Daily Graphic</i>	7	9	0	15	0	3	0
<i>Daily Guide</i>	10	2	3	19	2	2	0
<i>B & FT</i>	0	0	0	13	0	0	0
Total	17	11	3	47	2	5	0

Table 5.5: Type of Sources Norway

	Politician / Public Official	Scientific/ Academic Community	Company / Business	Int'l. Actors	Community Leaders	Local NGO/ Civil Soc	Ordinary Individual
<i>Aftenposten</i>	7	12	1	3	1	4	3
<i>Dagbladet</i>	8	9	4	3	0	3	3
<i>DN</i>	8	6	5	3	0	7	1
Total	23	27	10	9	1	14	7

Table 5.6: Type of sources China

	Politician/ Public Official	Scientific/ Academic Community	Company/ Business	Int'l Actors	Local NGO/ Civil Soc	Ordinary Individual
<i>People's Daily</i>	32	4	3	1	0	1
<i>Economic Daily</i>	16	2	20	3	0	0
<i>Southern Daily</i>	2	5	6	2	3	0
Total	50	11	29	6	3	1

One dismaying common feature of all the coverage analysed was that the majority of climate change stories in each country's national newspapers emanated from official press releases and other routine content such as conference speeches. As the table below on types of story (Table 5.5) reveals, Norway was the only country where significant numbers of journalists were seen to take reporting initiatives which unearthed other angles on the climate change issue than those of officialdom and business. But even within Norway's lively press a majority of stories were "routinized" i.e. releases originally produced by other organisations were recycled and reformatted to fit the paper's requirements rather than journalists digging up new stories of their own or new angles on existing stories.

This lack of journalistic initiative may be a function, at least in part, of a lack of scientific expertise on the part of the journalists. The reporting of risk is often not generally well understood in newsrooms and the often lengthy processes of environmental science do not easily lend themselves to newspaper coverage which tends to be event-oriented. In both China and Ghana the recruitment of environmental media specialists was reported to be problematic and even in Norway these specialists represent only a small handful of the total journalism corps.

There were some encouraging press articles exploiting local angles to the global climate change story such as the retention of local forests in Ghana, fish stocks in Norway and snowstorms and extreme weather events in China. But these were very much in a minority and without a culture of enterprise on the part of journalists (and matching enterprise by local non-governmental organisations and other local stakeholders) it looks unlikely that the climate change agenda will become widely owned in Ghana and China. Compared with the other two countries Norway has more entrepreneurial journalists and local sources of

information consequently it stands out as having the media with by far the most press commentary and opinion columns on climate change (See table 5.8 below).

On the other hand the Norwegian press is the only which devotes any significant space to contrarian views on climate change. Only one such story was uncovered in the Ghanaian press in the period under review. China has a media culture of having only “positive stories”, so there is no debate or dissent on either the causation of climate change or the policies adopted to tackle it as the media in general plays a cheerleader role for the official government position.

Table 5.7: Story Type Ghana

	Routinized	Enterprise	Editorial	Opinion/ Commentary
<i>Daily Guide</i>	31	2	0	0
<i>Daily Graphic</i>	23	6	2	2
<i>B&FT</i>	7	5	1	6
Total	61	13	3	8

Table 5.8: Story Type Norway

	Routinized	Enterprise	Editorial	Opinion/ Commentary
<i>Dagbladet</i>	13	2	4	14
<i>Aftenposten</i>	7	12	0	14
<i>DN</i>	17	6	1	9
Total	37	20	5	37

Table 5.9: Story Type China

	Routinized	Enterprise	Editorial	Opinion/ Commentary
<i>People's Daily</i>	25	0	10	4
<i>Economic Daily</i>	20	7	6	8
<i>Southern Daily</i>	4	0	0	7
Total	49	7	16	19

Perhaps the biggest variations in national coverage related to the placement and prominence given to climate change articles. In China the positioning of stories within a newspaper is in large part a part of protocol with stories reflecting national government policy given pride of place. But outside of the reporting of top national leaders on the subject there was no indication that climate change received any particularly favourable treatment. Indeed as an issue in itself it was not very visible beyond its link with the official governmental campaign rhetoric on energy conservation.

In Norway, however, the country’s more vigorous journalism meant that climate change stories got a higher place within newspapers, often receiving prominent headline treatment.

The contrast with Ghana – where climate change articles are usually assigned to obscure corners of inside pages – could hardly be greater. “Accra hosts big confab on climate change” was one rare headline story but the thrust of the story was more on Ghana hosting a major international conference than on climate change itself. A newspaper editor, questioned by the research team on climate change, remarked “No big story comes out of that”!

The generous treatment of the climate contrarians in the Norwegian press also illustrates how the norm of balance comes into play. The large impact of climate experts promoted by the Progress Party was deliberately given space within the leading national paper by its editors, in order to provide balance, in spite of questions raised by their own climate specialist.

5.2 National Policy Variations

In countries such as China in Asia, Ghana in Africa and Norway in Europe the interpretation, local sense-making and policy actions with regard to climate change are highly diverse:

- The Ghanaians swallow the IPCC message more at face value, and link it to national environmental challenges like deforestation and flooding, but fail to come up with relevant local policies. They are happy to leave policy solutions to be dictated from abroad.
- The Norwegians hold lively debates about climate fundamentals, worry about the melting of the Arctic and want to save the rain forests in the southern hemisphere with their oil money.
- The Chinese media debate, strongly coloured by the voice of the communist party, is more self-confident. There is a clear awareness of local implications in flooding and violent weather. Yet the main blame is clearly placed with the industrial national in the West and the country is only willing to take a limited responsibility for mitigation.

The Norwegian populist challenge to the IPCC’s position on climate change is a repercussion from the large popular support for the Progress Party. On the other hand, a large part of the Norwegian population disagrees with the Progress Party’s views. Norwegian media are particularly concerned with developing countries and climate; deforestation and threats to livelihoods, which fits well with a policy agenda reflecting their reluctance to raise radical demands for lifestyle changes back home. Besides their concern with the Arctic, both as an engagement with an neighbouring region, and for strategic global policy reasons, Norwegians have little to worry about at home and have therefore developed extensive concern with what happens abroad.

Climate change and global warming are pervasive terms in the Chinese policy discourse. The tone is generally positive and forward-looking. China, as expressed in the official “Peoples’ Daily” is confidently developing a national policy strategy and a national policy position in international negotiations and presents a well developed positioning in the global climate debate: The developed countries are treated as main culprits and responsible for solving the problems; the developing countries are less responsible, but nevertheless have to bear serious consequences and heavy costs; China is prepared to take multiple measures, but only after the West has done its share. The motivation and policy engagement come largely from local consequences. The *Southern Daily* features articles conveying awareness of extreme weather, especially typhoons which Guangdong province has to deal with every year.

The Ghanaian press reviews reflect a strong consensus on climate as man-made and hence it is up to humans to do something about it. However, the environmental stories appear to come top-down, disconnected from people's realities, and there is a large silence on any alternative systematic ways of dealing with climate change. The general concern is with climate-related local issues like flooding, food scarcity, health. Climate issues are generally seen as something presented from outside, through the UN system or other international systems and there is an expectation that the same sources should also come up with the solutions.

Our findings underline the significance of localised framing as the global climate change message is diffused to national contexts. The general message is transformed into highly diverse local stories. One of the drivers behind this local differentiation is obviously the opportunity for novelty and dramatisation that it gives the press. When contrarian political confrontation takes place in Norway or local flooding, drought or extreme weather hits China and Ghana, the systemic message of the IPCC can be seen to have visible dramatic expressions that make it into newspaper headlines.

The converse of this local dramatisation is that the message may deviate considerably from the original and that the results of the local interpretations and initiatives do not add up to a consistent approach to a global problem.

5.3 Three Forms of Escapism

If one assumes that the scientific basis for the IPCC line on the climate threat is broadly accurate, one may argue that Norway, Ghana and China meet the challenge with three forms of escapism:

- Ghana escapes into the victim role. The problems are created by the industrialised countries, and remain for them to solve.
- Norway partly opts out by denying the problem. The populist Progress Party has developed argumentation that the IPCC is wrong and the predicted catastrophes will not occur. Though the majority of Norwegians believe that action is needed, they prefer to intervene abroad, in order to protect their domestic lifestyle.
- China escapes by staging rapid growth to be modified only after the West has done its job.

Behind the escapism lies a commitment to consumerism that makes all three countries reluctant to stage major behavioural change:

- In Ghana many people are just struggling to survive. The need for basic necessities is overriding.
- Norway is too committed to existing extravagant consumption and a hedonistic lifestyle to be able to change voluntarily.
- China is too fascinated with the growth towards a future consumer society, the Chinese version of "the American dream", to stop.

6.0 Literature

Boykoff, Maxwell T & Boykoff, Jules M. (2007) *Climate change and journalistic norms: A case-study of US mass-media coverage* *Geoforum* 38

Carvalho, Anabela (2007) *Ideological cultures and media discourses on scientific knowledge: re-reading news on climate change* *Public Understanding of Science*.

DiPeso (2006) *Media Coverage and the Environment: Why Isn't Global Warming Hot News?* *Environmental Quality Management*, Autumn

Entman, Robert (2003). *Framing: towards clarification of a fractured paradigm* in McQuail, Dennis (ed.). *McQuail's Reader in Mass Communication Theory*. London, California, New Delhi: Sage

Fairhurst, G. & Star, R. (1996). *The Art of Framing* San Francisco: Jossey-Bass.

Foster, Richard (1986), *Innovation: The Attacker's Advantage*. New York: Summit Books

Goffman, Erving. (1974). *Frame Analysis: An Essay on the Organization of Experience* London: Harper and Row.

Good, Jennifer Ellen (2008) *The Framing of Climate Change in Canadian, American, and International Newspapers: A Media Propaganda Model Analysis* *Canadian Journal of Communication*, vol 33

Palfreman, Jon (2006) "A Tale of Two Fears: Exploring Media Depictions of Nuclear Power and Global Warming" *Review of Policy Research* volume 23 no 1

Rogers, E.M. (1995). *Diffusion of Innovations* (4th ed.). New York: Free Press.

Rogers, E., & Singhal, A. (1996). *Diffusion of Innovations*. In Salwen and Stacks, op. cit., (pp. 409-420).

Sahal, Devendra (1981) *Alternative Conceptions of Technology* *Research Policy*, 10 (1), 2–24.

Smith, Joe (2005) *Dangerous News: Media Decision Making about Climate Change Risk* *Risk Analysis*, vol 25, No 6

Snow, D. A., & Benford, R. D. (1988). *Ideology, frame resonance, and participant mobilization* *International Social Movement Research*, 1, 197–217.

Spears, Tammy (2005). *A Picninc in March: Media Coverage of Climate Change and public opinion in the United Kingdom*. In Humphrys and Williams (pp.121-135).

Utterback, James M (1994): *Mastering the Dynamics of Innovation* Harvard Business School Press. Harvard, Massachusetts

Weingart, Peter; Engels, Anita; Pansegrau Petra (2000) "*Risks of communication: discourses on climate change in science, politics and the mass media*, Public Understanding of Science vol 9.