

Thesis:
Comparing Journalisms: Newspaper Coverage of River
Issues and Climate Change in Australia and Bangladesh

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Certificate of Authorship/Originality

I certify that I am the author of this thesis, and this work is original. It has not been previously submitted for any other degree or award anywhere else, and all the sources of assistance including literature and individuals, who have helped in the research or in the preparation of the thesis, are appropriately acknowledged.

Jahnnabi Das
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Abstract

This thesis, which takes the form of a comparative study of journalistic practices in Australia and Bangladesh, examines the news coverage of river systems and climate change in four leading daily newspapers (i.e., *The Australian/The Sydney Morning Herald* [Australia] and the *Prothom Alo /The Daily Star* [Bangladesh]) during 2008 and 2009. It identifies and explicates similarities and differences in the selection of news topics and news sources, attribution of responsibility for environmental wrongdoing, and scrutiny of source statements by journalists in the two countries. Environmental debate, which is of great significance to journalism, is particularly important for Australia and Bangladesh as these countries, although located in different geographical and socio-political spaces, are currently encountering serious challenges to their ecologies, albeit the problems for each are widely varied. While a shortage of surface water and rising temperatures make Australia an environmentally vulnerable continent, the potential threat of sea level rise due to global warming, along with recurring massive floods put Bangladesh at the forefront of environmental challenge (Saul et al., 2012; Wahlquist, 2008; Douglas et al., 2001; Nicholls et al., 1999).

The study's findings reveal that in the newspaper articles in Australia, the local issue of river systems and global issue of climate change were strongly linked at both the policy and scientific levels, whereas in the content in Bangladesh these two issues were seldom related. Experts in Australia and bureaucrats in Bangladesh, as authoritative agents, were the most consistently nominated groups asked to discuss and explain issues relating to the two countries' river systems (the Murray-Darling and the Ganges-Brahmaputra). However, in the case of the climate change news, politicians were the most frequently cited sources in both countries' content. The study further reveals that newspapers in the two countries selected particular topics and framed sources so as to conform to the respective papers' positions on fundamental environmental questions. The newspapers under scrutiny used similar sources to validate totally different policy positions vis-à-vis river issues and climate change. As well, this study has made advancement in methodological terms by opening up the issue of journalistic practice to more intensive scrutiny—especially in comparative journalism—because it shows that journalistic professional practices in Western context may be as partial and tendentious as those in non-Western context.

Chapter 1

River Systems and Climate Change News

1.1 Introduction

The research presented in this thesis compares practices of sources selection and scrutiny of sources by journalists in two countries: Australia and Bangladesh. This comparison of news practices aims to facilitate understanding of similarities and differences in journalism. The study compares these practices by exploring the ways in which two environmental issues (i.e. river systems and climate change) have been presented in the major newspapers of the two countries. The newspapers explored are: *The Australian*, *The Sydney Morning Herald*, *The Daily Star*, and the *Prothom Alo*.

The thesis is comparative, critical, and in a limited way historical. It assumes that the differences between journalistic practices across the world should not be taken for granted, but empirically explored and tested. The thesis focuses on the news coverage of river issues in these two countries, which are assumed to be somewhat timeless in nature; it also scrutinises critical periods of global concern surrounding the issue of climate change, which, according to many world leaders, is the biggest challenge facing humanity in the 21st century. The main concern of this study is to understand any similarities or differences in journalistic practices in Australia and Bangladesh by examining how journalists address these periods of intense environmental debate in their respective newspapers.

Although similarities and differences are simultaneously emphasised in comparative studies of journalism, the differences are of particular interest to this thesis because while “[T]he similarities are relatively easy to enumerate ... what is really interesting are the differences, however we account for them” (de Burgh, 2005, p. 1). As de Burgh further maintains that while professional practices and organisational format of news media may be similar across the globe, there are considerable differences in the content and application of format. The

news content and its format are significantly influenced by the location and cultural contexts of journalism (de Burgh, 2005, pp. 5-6). This influence makes country-specific differences in terms of location, culture, or history significant considerations in any comparative investigation. The differences in journalisms may be examined in various ways, for instance, through analysis of the macro-level political and media systems, meso-level textual analysis that captures the characteristics of the journalistic text, or micro-level analysis that explicates journalists' behavioural practices.

It is well known that three schools of thought influence the comparative scholarship on journalism (Esser & Hanitzsch, 2012). First, the actor or behaviour-centred approach looks at how the individual as a professional or groups or institutions make choices in the fields of journalism, and political or strategic communication. Second, the structuralist or institutional approach focuses on the broader contextual environment, e.g. the technological, social, political and economic environment that expedites or restricts communication between the actors. Third, the culturalist or interpretative approach considers the actors' communication practices as processes of shared meaning between the practitioner and her/his socio-cultural context.

These meta-approaches have proven beneficial to those seeking an understanding of the variety of approaches applied in comparative study. Their value lies in the fact that they are not mutually exclusive. For example, any investigation of journalism culture can simultaneously use actor-based survey data when applying the culture-based notion of professional identity to understand journalism in cross-national contexts (Donsbach, 2010; Donsbach & Klett, 1993; Hanitzsch & Donsbach, 2012). Research into political communication simultaneously applies actor, cultural and structure-based concepts in order to develop a comprehensive understanding of this particular communication process in comparative contexts (Pfetsch & Esser, 2012; Tiffen et al., 2013). These three conceptual categories have been adopted and utilised in this thesis in an attempt to integrate various theoretical approaches to comparative study, and to identify the close interactions of these approaches rather than assume mutual exclusivity (Esser & Hanitzsch, 2012).

Critics who have applied these conceptual frameworks when comparing national systems of journalism have identified two distinct streams of scholarship: (a) a “universalist” approach, which aims to produce generalisations based on US experiences and assumes that these generalisations may be universally applicable; and (b) a “culturalist” approach, which argues that the social reality cannot be understood without first exploring contexts that are conditioned by “spatial and temporal” factors (Hantrais, 1999). Inspired by the “universalist” approach, some scholars argue that there are many similarities in journalism practices across the world. Others, however, argue that the differences in professional norms are more significant than the similarities. This view is in accordance with de Burgh’s (2005) claim that the differences in comparative studies are more interesting or pertinent than the similarities.

Those who favour a ‘similarity’ viewpoint posit that journalists across the spectrum aspire to be independent and autonomous, irrespective of their diverse socio-cultural and institutional differences. These critics further suggest that a crucial way of ensuring independence from other social institutions is through the norm of objectivity. Investigation of objectivity in different countries including Brazil (Herscovitz, 2004), Germany (Weischenberg, Scholl & Malik, 2012), Indonesia (Hanitzch, 2005), Bangladesh (Ramprasad & Rahman, 2006) and the United States (Weaver et al., 2007) supports the ‘similarity’ assumption in journalistic practice across the spectrum. The above ‘mono-national studies’ (i.e. single nation investigations) are quite valuable for understanding the characteristics of journalists’ perceptions about professional norms in specific countries. Comparative analyses (Deuze, 2002; Shoemaker & Cohen, 2006; Hanitzch et al., 2012) provide a broad view of the influences on journalistic practices manifested in professional norms; for example, newsworthiness and organisational imperatives across different countries. However, scholars in the “culturalist” stream (e.g., Berkowitz et al., 2004; Donsbach & Patterson, 2004) remain unconvinced by the similarities identified in those studies. They argue that there are some substantial differences in newsroom practices across the globe, due to the myriad social and political factors that influence news production and ultimately shape its content.

Both the conceptual framework and their applications work as points of departure for the current study that attempts to examine journalistic practices in Australia and Bangladesh as instances of “common activity” (Edelstein, 1982). Drawing on the above three schools of thought, this thesis employs a combination of institutional and interpretative approaches to make sense of the ‘contextual influences’ (e.g., political and media systems) that underpin the ‘object of investigation’ or the framing of news sources. In this sense, this study aims to expand upon the “universalist” and “culturalist” approaches whereby neither contextual influences nor the object of investigation are more powerful when explaining news practices. Rather, this study assumes that the implications for the framing of sources could be context dependent (e.g., media systems). According to this view, the context or media system is a crucial explanatory tool for understanding the framing of sources in these two countries.

Based on the number of countries studied, comparative investigations of journalism can be divided into three categories: (1) bi-national studies, the investigation of journalism practices in two countries to obtain an in-depth understanding of the different settings (Benson, 2005; Chalaby, 1996; Stromback & Dimitrova, 2006); (2) comparative studies of three to ten countries, seeking to determine how news is constituted, under what influences, and how it is perceived (Galtung & Ruse, 1965; Shoemaker & Reese, 1996; Archetti, 2008; Eide, Kunelius & Kumpu, 2010; Zhu et al., 1997); and, (3) studies which examine more than ten countries across the world to capture a broad understanding of international media coverage (Wu, 2000) and journalistic cultures across different continents (Hanitzsch et al., 2010; Hanitzsch & Mellado, 2011). Hallin and Mancini (2012) assert that two-nation analyses constitute some of the best comparative studies. However, it is difficult to generalise the results of two-nation studies in the larger context. One of the advantages of the large-scale study or third approach is the potential to identify “universal laws” (Esser & Hanitzsch, 2012) that can be generalised. But, as Livingstone (2003) argues, many phenomena are understood in terms of particular systems (e.g., media systems, education systems). For her, large-scale comparative analysis threatens to undermine “the legitimacy of the nation-state not only for political, economic or cultural purposes but also as a unit of analysis” (Livingstone, 2003, p. 480).

Comparative studies have contributed to a growing awareness of journalism across national contexts. However, the selection of the unit of analysis or country suffers from what Curran and his colleagues (2010) term “ideal typification” i.e., the selection of historically well-established similar media systems to understand the commonalities and differences between them. The current study seeks to go beyond the existing rigidity of unit selection to advance an understanding of journalistic practices by comparing dissimilar countries. As some critics argue, such divergent comparison is important (Benson, 2010; Blumler & Gurevitch, 1975) in that it has the potential to “render the invisible visible” (Hallin & Mancini, 2004) in a very beneficial way. The invisible, according to the critics, is the significance of the divergent journalistic practices. So, in order to achieve this goal, it is imperative to select dissimilar cases. However, conducting such a comparison may not be easy. Comparative research tends to be difficult because such studies

... can pose challenges to scholars’ preconceptions and [are] liable to be theoretically upsetting ... [Their contribution] is not confined only to testing, validating and revising existing theory. It also has a more creative and innovative role—opening up new avenues. (Blumler et al., 1992, p.8)

One new avenue for journalism may be the avoiding of reductive limitations, the paving of the way to understanding journalism practices both in their diverse contexts and in a more inclusive manner. The imperatives for new avenues are crucial to studying contrasting countries as units of analysis because there are significant inadequacies in the existing levels of understanding of journalism practices. For example, contemporary descriptions of journalism in the ‘developing’ world often assume a lack of professional rigor in these countries (Shanahan, 2011; Romano, 2003). This viewpoint may be critiqued as simplistic, because it is a “universalist” outlook that fails to adequately consider the contours of the actual journalism practices. As well, it fails to provide any intrinsic reasons for this perceived lack of professional rigor. Such inadequacies can be overcome by simultaneously scrutinising news practices (selection of sources, for example) in both developed and developing countries through a comparative study.

In this thesis, my examination of journalism covering river and environmental issues in aims to establish a ‘dialogic setting’ for understanding heterogeneous and uneven practices of journalism in Australia and Bangladesh (Wasserman & de Beer, 2009). This study of journalistic practices in contrasting national contexts has the potential to contribute significantly to this field because it contributes to rectifying the reliance of Journalism Studies on a few of Western countries for its empirical evidence and theory building (Curran & Park, 2000).

1.2 Why Journalistic Practice Matters

Journalism has many important roles to play in society, one of which is its watchdog or ‘Fourth Estate’ role, which entails journalists to monitor political rulers and systems of governance in a given society. In their attempts to accomplish this role, journalists negotiate newsworthiness by engaging in interactions with actors and agents from various other social institutions, fostering both adversarial and symbiotic relationships. Precisely how they engage in such negotiations will be the focus of this study. These engagements have been labelled variously, e.g. ‘mediated democracy’, ‘mediacracy’ and ‘mediated political realities’ (Orren, 1986; McNair, 2000 in Zelizer, 2004, p.145), terms that emphasise the interdependence between politicians and journalists. News media in many societies deem it propitious to interact with political institutions (Alexander, 1981). They accordingly become embedded in various countries’ political systems, exercising their ‘Fourth Estate’ role, which recognises the informal authority of the press to scrutinise the powerful (Hampton, 2010).

This thesis first considers the political systems in both Australia and Bangladesh then attempts to establish the relationship between news media and the state. To this end, it is necessary to examine the media systems of both countries so as to ascertain the position of news media in relation to other institutions competing for influence in society (Benson, 2010). This is likely to expose (a) the complexity and multiplicity of factors involved in the news production process, e.g. political factors, market or institutional imperatives of media organisations, and (b) which factors exert the most influence on the production process.

My examination of the sources and media systems is expected to elicit the nature of the association between the politicians and journalists in Australia and Bangladesh. The extant scholarly literature (Cook, 2005; Dimitrova & Stromback, 2006; Traquina, 2004) has emphasised the significance of politicians as crucial actors in the construction of news. However, the escalation of scientific and environmental issues, such as climate change, has rendered it important to explore whether journalists solicit the help of other groups of actors when attempting to construct coverage of environmental issues that cut across science and politics.

1.3 Empirical Issues Addressed

This study compares how the print news media in Australia and Bangladesh covered several environmental issues, the aim being to gain an understanding of the journalistic practices employed in these two countries, which are located in distinctly different geo-political regions. The process has involved analysis of practices such as: use of sources, scrutiny of source assertions, and patterns of news selection. Analysis has enabled this study to compare the journalistic practices underpinning how these important environmental issues are understood in the respective public domains. This study specifically focuses on the visibility of particular sources in the selected news content and intends to show how these content either supports or challenges the dominant socio-political structures in the two countries, or at least to expose how newspapers may endorse or critically examine the assertions of interested groups pertinent to the issues being considered.

This study is not only about the presence and positioning of different voices in news; it also aims to discern the extent to which the use of “other” voices allows a critical level of engagement with issues of concern. In addition, this study seeks to reveal the level of influence that journalists can exert through the positioning of different actors in their coverage. The expositions of issues and voices are important (Zehr, 2000; Carvalho, 2005; Trumbo, 1998) because they have not been raised previously and received adequate attention in a comparative context. Such expositions have a powerful potential to overcome ethnocentrism in media scholarship (Curran & Park, 2000).

Previous investigations have shown how certain sources are associated with particular frames in the representation of scientific issues such as climate change (Trumbo, 1996; Bell, 1994) and social issues such as homelessness (Schneider, 2012). While investigations of news sources (Ericson et al., 1989; Franklin et al., 2010; Dimitrova et al., 2006) and comparative practices of journalism (Galtung & Ruge, 1965) have been conducted disparately for more than forty years, I will suggest that although the sources are at the “heart of the journalism studies” (Franklin et al., 2010, p. 202), they have failed to receive adequate attention in cross-national comparative inquiries.

1.4 The Case for Investigation

This study compares the basic characteristics of news content in four leading newspapers in Australia and Bangladesh. These characteristics will be traced through examination of empirical questions, such as: Who do journalists use or cite when constituting news issues? How exactly do they quote these sources and represent them in the news? How are the rules of news professionalism (Tuchman, 1978, pp. 5 & 12) applied in interactions between news organisations and other social institutions? These empirical factors are expected to facilitate discussion of newspapers’ source selection, verification of assertions, and attribution of responsibilities for various environmental matters in the respective countries.

In order to address these empirical concerns, two crucial environmental issues - micro-level river systems and macro-level climate change, have been selected as cases for this study. On the eve of the Copenhagen Summit 2009, the issue of climate change attracted the particular attention of national politics across the globe, including the two selected countries of this study. The national leaders of many countries had been anticipating a global policy outcome from the Summit. Climate change, a crucial national policy challenge, was at the forefront of the Australian Labor government’s specific efforts to tackle greenhouse gas emissions, its intention being to introduce a much-debated Emissions Trading Scheme (ETS). In Bangladesh, climate change discussion was mainly confined to attributing the responsibility of environmental degradation to the world’s advanced economies, which were considered as

major emitting countries compared to the smaller and developing economies. At the same time, extensive human impact on their ecologies was also the focus of environmental deliberations in both countries (the over-exploitation of water bodies, for example). However, the deliberations on river systems did not match the extent of coverage of the climate change issue.

These deliberations were prioritised and shaped through particular uses of news sources. The importance of the selection and use of sources in journalism is well recognised. Critics have identified the relevant contextual production elements, e.g. routine non-event news and conflict or event-based news, which influence the use of sources in the news content (Berkowitz & Beach, 1993). Usually, the event-based news has less diverse sources than the non-event based news. This study, in which I scrutinise sources, considers climate change an event-oriented news issue, and river systems as non-event-oriented issues. The production contexts of these news issues are likely to influence or dictate the extent to which sources are used. This thesis aims to (a) reveal the differentiation in the selection of sources for these two issues; and, (b) to identify the commonalities and differences (or patterns) that distinguish the use of sources across the coverage of these two issues.

In order to map the different aspects of news coverage of the river systems and climate change, this thesis develops a systematic and quantitative description of said coverage. The quantitative description will offer a preliminary context for further exploration of the relationship between sources and journalists, vis-à-vis making claims or assertions by sources. It will also explicate the dominance of certain types of sources over others and their representation, and offer an overall contribution to understanding the critical elements of journalism.

1.5 Significance of the Study

The two selected environmental concerns, i.e., river systems and climate change, have been chosen as a common point of departure for obtaining an insightful comparison of the different journalistic practices in the two countries. While these concerns are assumed to be

sufficiently similar in scope, they differ significantly in essence. Both countries experience water resources problems together with disputes over the management of their river water resources. In addition, they have to tackle the looming danger of perceived catastrophic global climate change. However, in effect, the essence of their problems is quite different for, as suggested earlier, while Australia faces acute water shortages, Bangladesh lives with the threat of excess water, particularly if global warming continues.

These two environmental matters are perhaps the most visible empirical indicators of what many see as more nebulous global change, a concept that is hard for common readers of news to immediately relate to or easily identify. Such changes, while seemingly nebulous, are significant because they affect various aspects of the national lived reality of two countries: their farmers, food supplies, agricultural productivity and even interstate conflict over natural resources (water, for example). The issues and developments concerning rivers and climate change also symbolise the respective nations' environmental health.

From the point of view of professional journalism, the relationship between news practices and environmental issues is also significant. In simple terms, journalism is expected to generate and sustain social deliberations. An important component of contemporary social deliberations worldwide is the crucial question of environmental change and associated challenges. The ways in which news media represent the subject of environmental change is therefore a significant matter for discussion due to the influence of news media on common person's understanding of and involvement in vital environmental matters. This thesis aims to examine professional efficacy of journalism in this area by scrutinising source selection and verification of source statements.

This study locates the central and peripheral topics in the debate surrounding the two environmental matters in coverage by four newspapers: *The Australian*, *The Sydney Morning Herald*, *The Daily Star*, and the *Prothom Alo*. The selection and prominence of certain topics over others results from the routines of news making and from journalistic decision-making regarding newsworthiness. In order to identify themes, I examine the topics of river news and climate change, which are either particularly focused on or overlooked by the newspapers.

My analyses of the topics will allow recognition of one crucial dimension of the sociology of news: the relative salience afforded river systems policies and climate change regulations by the two countries. The salience given to different topics should indicate how news media narrow “the available political alternatives” by making stories interesting, remarkable and newsworthy (Tuchman, 1978; Schudson, 2007).

This study expects to find differences in coverage patterns due to diverse geo-physical dimensions of the two selected environmental cases. The representations of the topics are also expected to foreshadow different newspapers’ (journalistic) characterisations of the two environmental concerns, which play important roles in the interactions between news media and other institutions in society. This understanding of characterisations will be crucial to seeing journalistic content as part of the social construction that describes events or topics, by utilising various existing ‘cultural categories’ and subsequently privileging certain categories over others (Ettema & Glasser, 1998, p. 221).

While the exploration of topics offers a picture of the salience of pertinent facts and sources in the coverage, these facts also need to be presented within a context of professionally validated journalistic methods. Such methods include, but are not confined to, verification of various source statements and attribution of responsibility for the various problems that arise in news content. My analyses of the representation of these matters will hopefully foster an understanding of how particular news organisations operate in different markets and political systems. As well, they will facilitate identification of the variations in the usage of sources between the two newspapers in each country, i.e. the dominance, if any, of one particular type of source over others, and any consistent pattern in source dominance (or absence) in the two countries studied.

This study does not intend to explore the institutional power of sources, and if and how some sources are deprived of it. Rather, it expects to see how journalists, as key facilitators of public sphere deliberations, use these sources in two interconnected focal points of journalism: news practice and news content (Tuchman, 1978; Carlson & Franklin, 2011). To this end, my study seeks to identify which entities journalists hold responsible for the two

environmental problems in the two countries. It also questions whether journalists vary from each other, particularly when targeting institutional sources, holding them responsible for the respective country's various environmental ills.

The goal of this project is to determine how Australian and Bangladeshi journalists articulate macro-level environmental problems (e.g., climate change), and micro-level environmental issues (e.g., river systems), and 'mediate' or represent these in their news products.

Furthermore, I will demonstrate how journalists make sense of these issues by producing "lasting connotations, attaching both importance and insignificance, normalcy and deviancy, acceptability and unacceptability—even right and wrong" (Carlson & Franklin, 2011, p. 5).

1.6 Conceptual Approach

Various scholars on news sources in journalism state that an extremely complex web of interactions between journalists and sources takes place in the negotiation of newsworthiness. The mounting evidence suggests that although the relationship between sources and journalists is reciprocal, the latter ultimately give precedence to certain types of sources, at the same time obscuring others. In recent times, a number of scholars who have compared news sources in bi-national (Dimitrova & Stromback, 2009) and multi-national (Kim & Weaver, 2003) investigations of political and economic news have confirmed the dominance of official sources in the coverage. However, to date, sources of environmental news in a comparative setting have evaded adequate scholarly scrutiny. Given that the prominence of certain sources in (political/economic) news has been established, the current study does not intend to determine the most prominent or powerful environmental news sources. Instead, it will examine the implications of elevating certain sources for salience.

While the current study seeks to empirically examine the degree of prominence of sources, it recognises the rationale for going beyond the empirical aspects to analyse the consequences arising from the prominence of some sources and the obscurity of others. The relative prominence or obscurity (presence or absence) of different features of the mass media is effectively explained by the theoretical notion of framing. This study draws on the notion of

‘framing’ as a prominent landmark (Ettema, 2010) for understanding the classification of different social actors and their actions (how journalists exert their power) through selection and omission (Entman, 1993). For some critics, more visibility or presence connotes power, while less visibility connotes a lack thereof. By selecting certain sources, journalists eventually validate their versions of any news event or issue over others. The choice of different sources determines the ways in which journalists use frames in this process of validation. In this respect, studying news media’s use of different or similar sources, and how they utilise sources to construct the body of news, is expected to be helpful in understanding source framing.

Journalists perform their tasks according to their professional ideologies, which allow them to produce news content in particular ways. In this profession, ideology represents a paradigm, which “follows a science-like model, where reporters gather authoritative data and then present it without explicitly taking a side in the discourse” (Berkowitz, 2009, p. 103; Ericson, 1989). In this model, journalists are beholden to the ‘raw materials’ provided by various sources. Although the paradigm is perceived to work effectively, it neither takes into consideration the various vested interests of the sources, nor the news organisations’ own positions in response to certain issues. The inefficacy of the paradigm is explained by “professional frames that guide information processing and text production by the journalists” (Tuchman, 1976; Dunwoody, 1992; Entman et al., 2009, p. 179). In particular, the journalists’ ability to choose who to include and exclude as sources, and how to use their quotations, are important elements in this explanation. As van Dijk (1991, p. 152) claims, the presentation of a quotation allows the insertion of subjective interpretation without violating the “ideological rule that requires separation of facts from opinions”.

Apropos of my study, the notion of framing enables an understanding of journalistic practices whereby journalists (and news organisations) select certain types of source perspectives and ‘make them more salient in communicating texts’ through the instrumentalisation of journalistic norms. These include verification of source statements, and scrutiny of institutional actors, methods employed to make the powerful accountable (or not) for their roles in the construction of news.

1.7 Overview of the Thesis

This chapter has argued for the significance of a comparative investigation of the news content of four newspapers in Australia and Bangladesh. As well as aiming to comprehensively understand journalistic practices across contrasting national, socio-economic contexts, it recommends conceptual and empirical guidelines for selecting two diverse regions and two interconnected environmental issues, and subjecting them to scrutiny.

In Chapter 2, I delineate the two countries' political and media systems, as well as their environmental contexts. I start with a description of the river systems of these countries; then switch focus to the Murray-Darling and the Ganges-Brahmaputra rivers in Australian and Bangladesh respectively. Then I present a brief overview of climate change issues to reveal the scope of anthropogenic versus natural calamities in these two countries. Brief attention is directed towards the political and media systems of these countries, in an attempt to show the relationships between the two that provide the ground for comparative analysis.

Chapter 3 outlines the importance of various sources, e.g. politicians, experts, government officials and social activists in the news production process. Focus is also upon the conceptual bases of my cross-national investigation. In the beginning of this chapter, I described the significance of sources in journalistic production. My brief allusion to framing explains why I have chosen to use a 'framing analysis' approach, that is, to see how various sources are positioned in the news media representation of climate change and river systems. This chapter also addresses both the relative benefits of quantitative and qualitative analyses for examining selected news content, and the limitations of this research project.

Chapter 4 provides a description of the observed patterns of the coverage of river systems and climate change across the four newspapers analysed. It also discusses the presence and absence of topics related to river systems and climate change in Australia and Bangladesh, by elucidating quantitative findings and interpreting them through qualitative cases. Contrasts

and comparisons are presented between the two differently styled newspapers analysed in each of the two countries.

Chapters 5 and 6 discuss the presence of various sources, such as political, official, bureaucratic and expert, and the patterns of their presence in news content. The patterns are analysed against a number of journalistic professional norms, manifested in the verification of different statements, as well as attribution of responsibility for issues raised in the news content.

In the concluding chapter (Chapter 7), I discuss the various empirical findings in two parts: a comparison of topics and positioning of sources in the four selected newspapers, and a critical discussion of the findings. In particular, the final section recapitulates the key findings and explains the implications of them for the study of journalism.

Chapter 2

Environmental, Political & Media Systems

2.1 Introduction

This chapter, in which I describe the political systems, media systems and some geographical issues pertaining to Australia and Bangladesh, provides a background to news coverage of river systems and climate change. The relationship between politics and the media worldwide is quite significant, and in the current period of ‘increased mediatisation of politics’ this relationship has assumed increased importance, and therefore becoming quite intense and complex (Schudson, 2002; Hallin & Papathanassopoulos, 2002). In any attempt to understand the characteristics of news content in the four selected newspapers, it will be beneficial to briefly discuss the media and political systems of the two countries, which are influenced by the complex relationships between the two systems. These three aspects — politics, geography and media — will facilitate an understanding of the selection of issues and sources by journalists, as well as of the representation of them in the news coverage of river system and climate change.

The following section, in which I introduce the contexts of river systems and climate change in Australia and Bangladesh, sets the ground for a comparison of the coverage patterns of these topics. In fact, both countries have been labelled as worst affected by climate change in their own ways. In recent times, Australia has started to experience some of its worst periods of drought since colonisation (Potter & McKenzie, 2007; Jennings 2012); and, Bangladesh has been singled out as a potential victim of global warming due to the ever-present danger of future rising sea levels (Douglas et al., 2001; Nicholls et al., 1999).

2.2 River Systems

2.2.1 Australia: Perched Landscape

Australia, which is generally considered to be the world's driest island continent, has limited fresh water resources. However, despite the country's dryness, its river water is heavily used for agricultural, industrial and domestic purposes. Its river systems sustain a biological ecosystem, and also provide recreational, aesthetic, social and cultural benefits to its many and varied communities. A 2003 audit of land and water resources found significant changes in river conditions in Australia due to intense land usage, increased nutrient and sediment loads in the soil, and loss of riparian vegetation. The latter alone poses a severe threat to the ecological sustainability of rivers, wetlands, and groundwater dependent ecosystems (Whittington & Liston, 2003).

Agricultural activities, including crop production and grazing, are evident in approximately 60 per cent of Australia's land, although these constitute only three per cent of the country's Gross Domestic Product (GDP). Agricultural fields release nutrients into the waterways, in the process of increasing sediment loads. The 2003 audit data showed that 30,000 km of river length experienced a high presence of sediment due to widespread clearing of vegetation. The sediment level was 0.3 m higher than that of European settlements. The audit also found that more than 85 per cent of the country's rivers were degraded by human activity. This degradation of water bodies has caused reduced water availability, fermenting growing concern among experts for the protection of 'environmental water' and the saving of the vulnerable ecosystems surrounding the water bodies (Whittington & Liston, 2003). In recent years, the Murray-Darling has been singled out as one of the worst affected river systems in Australia.

The principal source of river waters in south-eastern Australia is rain water. However, precipitation has quite uneven distribution: there is a sizeable discrepancy in rainfall patterns across geographic regions and seasons. Rainwater sustains vegetation, trees, lakes and groundwater aquifers before it mixes with the ocean. But most of it evaporates due to the

high temperatures. Only one-fifth reaches and soaks Australia's parched river systems. (Metcalf & Riedlinger, 2009; Rose, 2007; Bureau of Meteorology, 2011). These figures show the variability and scarcity of natural rainwater. In addition, various human activities contribute to further deterioration of the river water. These activities include water-intensive production of primary industries (beef, wool, wine) and increased population numbers leading to higher demand for surface water (McKay, 2007).

Thus, in any examination of issues related to river systems, it is important to scrutinise both immediate and long-term issues. In other words, while it is essential to pay attention to the range of current factors impacting upon the river systems, it is also instructive to examine the roots of these and other factors. Critics (McKay, 2007, p. 91; Mudie, 1966) argue to the effect that the issues surrounding Australian river systems are underpinned by regulations relating to land and water use, for example, the water allocation licence system introduced in the 1880s. Economic growth was the fundamental principle underpinning this licence system, which replaced a riparian system that had restricted access to water to owners of land adjacent to rivers only. Under the new licence system, the state allowed as many landholders as possible to pump water from the rivers for agricultural purposes. But, because the allocated water was often accessed beyond the sustainable capacity of the surface water, many farmers were compelled to use ground water.

2.2.2 The Murray-Darling Basin

The practice of over-extracting river water is prevalent in the Murray-Darling Basin, which covers 1,061,469 square kilometres in south-east Australia. This huge area incorporates approximately 14 per cent of the continent's total landmass (Crabb, 1997; Weir, 2007; Wahlquist, 2008). Its river system stretches over four states, including New South Wales (57 per cent), Victoria (12 per cent), Queensland (25 per cent) and South Australia (six per cent). The Basin's evaporation of precipitation accounts for more than 94 per cent. In economic terms, the Basin generates 39 per cent of national agricultural income (Davies et al., 2010).

Scientific research literature and the opinions of experts highlight serious concerns about water sharing in the Murray-Darling Basin debate. Questions have always surrounded the utilisation and sharing of water by Australia's different states. The first River Murray Waters Agreement was signed in 1915 by the states, and a large engineering project, which commenced in the 1920s, facilitated construction of structures including dams, weirs, locks, canals and pipes to provide water to rural communities for agricultural and other consumption purposes (Weir, 2007; Wahlquist, 2008). In particular, intensive agricultural activities severely affected the quality of river water, manifested in the increased sedimentation and salinity, and decline in biodiversity. These activities were at the centre of growing concern in the 1980s. The following excerpt from Wahlquist's book titled *The Thirsty Country*, which deals with water ecology in Australia, epitomises this concern:

Historically, the environment used every drop of water from rivers within the Murray-Darling Basin. Once water is diverted from the river system, there is an impact on the environment. The challenge for the scientists is to identify, measure and understand the impact of current and future water diversions. The challenge for the community is to decide how much of an impact is acceptable (Wahlquist, 2008, p. 156).

In a concerted bid to address the challenge of sharing 'water for the environment', the states and the federal government have engaged in consultation over the past few years, with negotiations frequently characterised by tension between the conservationists and farmers. The conservationists have consistently argued that the Basin had been exploited for far too long for agricultural and other purposes, and that it is time to return the water flow to restore biodiversity. The farmers, on the other hand, protested regarding the lack of water for agriculture, arguing that rural communities and the economy would gradually dissipate if water continued to be in short supply. However, in more recent times, the federal government has reached the first national deal on water use, which has been seemingly endorsed by all parties (i.e., the conservationists, farmers, and opposition political parties). According to the deal, approximately 3,200 gigalitres of water will be recovered, although there are questions about the source of such 'water for the environment' (Vidot, 2012). According to the Agreement, regional communities along the waterways will receive grants totalling \$100

million to help diversify economies and adjust to a future with less water. The compensation will come from the \$5.6 billion originally set aside for water infrastructure upgrades.

2.2.3 Bangladesh—Land of Rivers

As the largest delta in the world, Bangladesh is aptly called the ‘land of rivers’.

Approximately 710 small and large rivers crisscross this low-lying South Asian country, which has a total land area of 147,570 square kilometres. One of the country’s less propitious features is that its coastal area is situated just a few metres above sea level. With a population of approximately 155 million, about seven times that of Australia, Bangladesh is a densely populated country, with a land area of only approximately double the size of Tasmania (Tanner, 2009).

One important characteristic of Bangladesh, a predominantly lower riparian region, is that during the monsoon period, it receives a significant amount of water flow from the upper riparian rivers situated in neighbouring India. In contrast, it receives too little flow to sustain its river systems in the dry season, a pattern particularly evident in the south-western region of Bangladesh. However, continuous flows of water in the lower riparian flood plains are very important for Bangladesh because only an uninterrupted supply of water can sustain the triple cropping system practiced in many parts of the country and feed its large population. Due to low industrialisation, Bangladesh’s economy depends heavily upon agriculture, which constitutes 18.6 per cent of its GDP and employs 45 per cent of the total labour force (The World Fact Book, 2008; Gain, 2002).

So, without questions, rivers are important for the economy of this delta land. However, the irony for Bangladesh is that from time to time it has to withstand river-related natural disasters of enormous scale (such as floods). One massive flood hit Bangladesh during the monitoring period of this study (2008), when overflowing river water swept across the southwest of the country. Although floods invariably do enormous damage to agriculture and infrastructure, they are also beneficial for arable lands as floodwaters carry sedimentation containing ‘nitrogen supplying blue-green algae’ (Mirza & Ahmad, 2005).

In general, river-related issues in Bangladesh have two dimensions, natural disasters e.g. floods and pollution of river water. Floods frequently lead to heavy siltation of the riverbeds, in the process reducing the rivers' water-carrying capacity. This situation becomes further complicated by heavy rainfall in the rivers' upper sources, especially during monsoons. Severe flooding also triggers the erosion of riverbanks, which stretch along an estimated 2,000-3,000 kilometres (Rogge & Elahi, 1989; Hutton & Haque, 2003). Bangladesh is well known for its floods, where almost twenty five per cent of land area submerged in an average year, with increasing risk of floods of varying capacity in other parts of the country (Ahmed & Mirza, 2000).

However, in recent years, catastrophic flooding had been reduced significantly with the introduction of community micro-management of water, early warning systems, and flood protection infrastructures (World Bank, 2010). But, these advancements are being either reversed or compromised by increased emissions into the atmosphere; and, they are further threatened by a predicted rise in temperature by one to three degrees Celsius in the Ganges-Brahmaputra-Meghna (GBM) Basin (Intergovernmental Panel On Climate Change [IPCC], 2007). Interestingly, the looming danger of a rising temperature is not a major concern for the government of Bangladesh, which continues to consider flooding rather than climate change the most significant hazard facing the country (Dasgupta et al., 2011). This may explain why the extent of newspaper coverage of the impact of climate change on river systems in Bangladesh is lower than the coverage in Australia, as I discuss in Chapters 4 and 7. The Bangladeshi news media instead show strong interest in trans-border water disputes with India, including the issue of the proposed Tipaimukh Dam in northeast India and its capacity to exacerbate climatic impact on Bangladesh, an issue I discuss in detail in Chapter 4.

Along with natural disasters and trans-border water disputes, another dimension of river-related issues in Bangladesh is the relentless pollution of the country's waterways. This has been variously attributed to rapid industrialisation, poverty, and lack of enforcement of various environmental laws introduced to tackle the dumping of industrial effluents, and the illegal building of structures adjacent to river bank lines (Musa, 1996, quoted in Faruque et

al., 1996). The heavy discharge of municipal and industrial waste into the country's rivers has caused endemic pollution; and, as a result, the surface water in and around Bangladesh's urban areas is in critical condition (Karn & Harada, 2001).

2.2.4 Pollution in the Ganges – Brahmaputra

The most pollution-affected river system in Bangladesh is the Ganges-Brahmaputra, the tributaries of which pass around the densely-populated capital city of Dhaka. Among these tributaries are the Buriganga, the Dhalewshari, the Turag and the Shittalakkha. The Buriganga (or 'Old Ganges'), which has been the lifeline of Dhaka, is now seriously polluted, with high industrial and other contamination threatening the city's public health, eco-system and socio-economic circumstances (Anam, 2009). In addition, various encroaching structures, such as real estate and industrial factories, block the natural flows not only of this, but of other rivers.

The propensity of the degradation of the Buriganga was the subject of a recent survey conducted by the Bangladesh University of Engineering and Technology (BUET). The survey found 1,000 brick kilns and 8,000 incidents of land grabbing along the riverbanks, and direct discharge of approximately 82 per cent of total human excreta from the city. The extent of this pollution has turned a hitherto culturally and environmentally rich river into a biologically dead water body (Roy, 2011).

River pollution is a complex problem caused by many factors including rapid urbanisation, blatant disregard for environmental regulations, and lack of adequate resources for river management, factors that have been of major concern in Bangladesh for decades (Khan, 2009). The extent of the Bangladeshi and Australian news media's coverage of this crucial issue of river pollution will be examined in further detail in Chapters 4 and 6.

2.2.5 Summation

From the above general outline, it seems reasonable to suggest that there are broad similarities and striking differences in the river systems of Australia and Bangladesh. The similarities are in the water management procedures. In Australia, some states experience extreme shortages of water resulting from its extraction by states closer to the sources in the tropical and sub-tropical north-west. Similarly, Bangladesh experiences shortage of water in the dry season due to withdrawal of water by upper riparian India. As a result, Bangladesh has on-going water sharing disputes with its neighbouring country.

The differences between the two river systems under scrutiny in this thesis are obvious: while Bangladesh is regularly impacted by excess upstream water flows, Australia endures high temperatures and, by extension evaporation of its rainwater, creating scarcity of flow into its rivers. An important fact to note is that in both countries, the problems to which their rivers are exposed are likely to be exacerbated in coming years by rising temperatures and changing climatic conditions.

2.3 Climate Change

2.3.1 Climate Change in an ‘El Nino’ Continent

Australia, the sixth largest country in the world, is a large ‘El Nino continent’ (Grove, 2007) in the southern hemisphere. Due to the vastness of this island continent, it has diverse climatic patterns that are manifested in the tropical nature of the north, the arid environment in the south, and a moderately wetter environment in the south-eastern area in which the major cities are located. Approximately 80 per cent of the land is dominated by arid weather, with annual precipitation of less than 600 millimetres (www.bom.gov.au).

As Don Blackmore, former Chief Executive of the Murray-Darling Basin Authority, observed: “...the landscape is driven by temperatures not rainfall” given that only 2.4 per cent of rain ends up in the basin (quoted in Wahlquist, 2008, p. 5). Australia, an economically-developed country, is vulnerable to climate change. It has high population

density in the coastal areas, poor soils, and a variable climate with extreme weather events. Many of the discussions about climate change in Australia, which are mainly based on investigations by the CSIRO and the Bureau of Meteorology (BOM), have rendered two factors explicit: first, how Australia is navigating climate change; and second, that “by 2010, average temperatures in Australia had already warmed by almost one degree Celsius since 1950” (Saul et al., 2012, p. 37). Rising temperatures, accompanied by increased evaporation and subsequent water shortages, heralded the beginning of a long, dry spell during 2002-2003. This dry spell was labelled as the “first climate change drought in Australia” (Wahlquist, 2008; Saul et al., 2012). As a result, GDP declined by one per cent. Simultaneously, the gross agricultural product fell by 28.5 per cent, which at the time was the equivalent of 7.36 billion Australian dollars.

Experts have identified recent extreme weather events, such as Victoria’s ‘Black Saturday’ bushfires in 2009 and the Queensland floods in 2011, as consistent and expected outcomes of climate change (Garnaut, 2011). Another significant indicator of climate change has been the coral bleaching of the Great Barrier Reef. Due to rising temperatures and acidification of the ocean, the estimated loss was more than two billion dollars per year, particularly in the sustainable fishing and tourism sectors (Wooldridge, 2009). Although Australia is geographically vast and economically advanced, its habitat pattern is not diverse. Some 80 per cent of the population lives in coastal areas where rising sea levels pose a direct threat to fixed assets worth approximately \$25 billion dollars (Saul et al., 2012, p. 36).

In 2008, the Garnaut Climate Change Review emphasised rising temperatures and their impact on the Murray-Darling Basin, which had already been experiencing little run off and heavy evaporation. And, the declining rainfall in the continent threatened to exacerbate the condition of the Basin. In the same year, the CSIRO (2008) predicted that, by 2030, the Basin would suffer from lack of availability of surface water, and that changing rainfall patterns were unpredictable. Due to the scarcity of water, the cost of climate change in the agricultural sector could reach one billion dollars by 2030. The shortages of water would also be accompanied by changes to pasture, more pests and diseases, along with more extreme events such as fierce bushfires, intensified floods, and frequent cyclones.

Despite climate change sceptics' claims regarding the credibility of climate science, since 2008 is quite intact in the midst of intense scrutiny (Garnaut, 2011), albeit the relentless doubt persists. A number of critics (e.g., Plimer, 2009) and news media have continuously cast fresh doubt on various aspects of climate change. In a controversial argument against the notion of anthropogenic climate change, Plimer (2009) asserted that volcanic eruption released more carbon dioxide (CO₂) into the atmosphere than human activities. He also argued that current scientific investigation into climate change relied on dubious computer modelling; thus, the findings were extremely under-representative in terms of a broader timeline (Gocher, 2010). Despite comprehensive responses to these issues from climate scientists and the Department of Climate Change (2011), sceptics like Plimer, and sympathetic organisations including *The Australian*, the Institute of Public Affairs (IPA), and the Australian Environmental Foundation (AEF) continue their anti-climate change campaign (Media Watch, 2012). In particular, News Limited's flagship publication *The Australian* continues to challenge scientific evidence associated with climate change, despite simultaneously focussing on issues such as damage to the Great Barrier Reef, the Victorian bushfires in 2009, and the Murray-Darling Basin crisis (Media Watch, 2010; Nash et al., 2009).

2.3.2 Climate Change - 'Nature's Laboratory'

As predicted by the IPCC (2007) and recently reinforced by the World Bank Climate Change Report 2012, the effects of a rise of 4° Celsius (7.2°F) in temperature would cause a sea level rise of 3 feet in Bangladesh. Such a rise has the capacity to jeopardise the habitats of 24 million people in the country's coastal regions (The World Bank, 2012). In line with numerous previous reports, the World Bank's (2012) recent report titled 'Turn Down the Heat' issued a stern warning that no country would be spared the devastating impacts of climate change. And, poor nations would suffer the worst consequences due to declining crop production and consequent severe food shortages, hunger and poverty (German Watch Report, 2012; IPCC, 2007; OECD, 2003).

A brief search of literature regarding climate change in Bangladesh revealed varied perceptions among experts vis-à-vis the attribution of responsibility for the ill-effects of climate change. International experts stressed the existing problems and their effects on future climate change as follows:

Climate change poses significant risks for Bangladesh, yet the core elements of its vulnerability are primarily contextual. Between 30-70% of the country is normally flooded each year. The huge sediment loads brought by three Himalayan rivers, coupled with a negligible flow gradient, add to drainage congestion problems and exacerbate the extent of flooding. The societal exposure to such risks is further enhanced by Bangladesh's very high population and population density (OECD, 2003, p. 6).

Local experts, for example Professor Ainun Nishat of the International Union of Conservation of Nature (IUCN), Dhaka, regard Bangladesh as "nature's laboratory of disasters". He further argued that Bangladesh was facing imminent danger from encroaching seas, fiercer and more frequent cyclones, as well as storms and floods, due to the relentless rise in global greenhouse gas emissions in the atmosphere. International experts claim that the exponential growth of population is significantly impacting on the country's environment. While local experts do not discount the impact of population growth, they place more emphasis on the impact of climate change which, they claim, further aggravates a situation already affected by a range of natural disasters. They are also critical of inadequate government response to many on-going environmental problems, such as shrimp farming, the illegal felling of trees in forests and indiscriminate poaching of wildlife. This is also consistent with the findings of this study (see Chapters 4 and 6).

Much climate-related research has exposed the vulnerability of Bangladesh to warmer weather and increased precipitation in the Ganges-Brahmaputra-Meghna Basin. If the predicted rise in global temperature from 1.4° to 2° Celsius eventuates, precipitation can increase from 2 to 7 per cent by 2050. Concomitant with a single degree temperature rise, rainfall would increase by five per cent in the GBM basin area; and, the intensity of flooding

would escalate simultaneously. As a consequence, 20 per cent more land area in Bangladesh risked being flooded (Dasgupta et al., 2011). A fourth assessment of the IPCC (2007) cautioned that while the frequency of tropical cyclones could increase by five to 10 per cent, the locations of cyclones would remain the same. The consequent intensity of cyclones could lead to strong winds and greater exposure of coastal land to storm surge.

The predicted extent of sea level rise has been an important topic of discussion in Bangladesh. Different models have variously predicted the sea level rise in this low delta land, including 30-100 centimetres calculated by the government of Bangladesh, and a rise of “14, 32 and 88 cm for the years 2030, 2050 and 2100 respectively” (Karim & Mimura, 2008, p. 493; also mentioned in the IPCC’s 2007 third assessment as well as in other sea level rise [SLR] studies). To date, there is currently no precise indication of a specific rise in sea level for Bangladesh. Some experts consider such a prediction difficult due to the active nature of the Ganges-Brahmaputra delta, with its dynamic morphology. In addition, local investigation of the river systems revealed that Bangladesh would gain 640 square kilometres of land through accumulation of sedimentation from the river systems (Inman, 2009). Although this prediction potentially challenges the IPCC findings, it is not clear how the limited height of these lands could combat rising sea levels.

2.3.3 Summation

It is evident from the above brief description of climate change issues that both Australia and Bangladesh are significantly vulnerable to sea level rise, due to many factors including the concentrated habitat pattern in Australian coastal regions, and the geographic location of Bangladesh in the low-lying delta region (see Diamond, 2005). However, the reactions of these countries to climate change have differed significantly for whereas Australia is taking various forms of action to combat climate change, Bangladesh is still at the ‘deliberation’ stage. The local scientific investigations in Bangladesh and the policy responses appear somewhat inadequate compared to those of Australia.

2.4 Political Systems

2.4.1 Political System: Australia

Australia's system of government is enshrined in liberal democratic principles and underpinned by individualism, religious tolerance and freedom of speech. The government institutions and practices are similar to the British and North American models, albeit with their own special features e.g., a strictly enforced compulsory voting system, which is viewed by some as a "democratic innovation" (Jones & Pusey, 2010). There is some suggestion of introducing this system elsewhere, particularly in the UK where the voting turnout in elections has dwindled over the years.

The Commonwealth of Australia was constituted in 1901, when six former British colonies formed a union and separated from the British Empire. However, Australia has retained part of the Imperial tradition in the form of a constitutional monarchy. Currently, the Queen of England remains its head of state, although the monarch's power is limited by the Australian constitution, which laid the framework for the Australian system of government. The country is divided into three tiers of governance: local, state and federal.

Through the formation of state governments, former colonies retained the power to legislate in certain jurisdictions such as education and transport. Both the federal and state governments are divided into three branches: legislative, executive and judicial. The legislative and judicial branches are independent of each other. The legislative has two wings i.e., the House of Representatives (Lower House) and the Senate (Upper House, also known as the 'house of review'), thus ensuring that legislation does not discriminate against any one particular state. While the Australian governance system is considered one of the most effective among Western democracies, some critics are not convinced about its democratic innovation principles. They argue that the scope of democratic practice in the Australian system is very limited (Kuhn, 1998), because the people only exercise their democratic rights every three years by visiting their local polling stations. The remainder of the time they are at the 'receiving end' of the political decision-making processes over which ordinary citizens

have limited or, more usually, no control, although said decisions impact on their lives in many ways (Kuhn, 1998, p. 370).

So, who influences the decision-making processes in Australia? This question does not invite a clear-cut answer. Different critics have different views, often depending on the socio-economic perspectives they pursue. The political economy perspective argues that policy formulation is an outcome of bargaining, mostly between political and commercial elites. The critical studies perspective posits that different ‘public interest advocacy groups’ (e.g., Australian Consumers Association, Youth Media Group, Media Entertainment Arts and Alliance) play crucial roles in public policy formulation. This is particularly evident in the formulation of media policies (Gruen & Grattan, 1998). Others (Marsh, 1995; McKnight, 2005; McEachern, 1991) argue that issues related to economic matters are often heavily influenced, and at times determined, by a coterie of business managers who are influenced by contemporary ‘market values’ which posit that all economic and social issues can be handled with “individualism, competition and free market” (McKnight 2005, p. 18). However, others see the influence of Australian politicians’ “business mates” as significant, but not always apparent. In order “to press their claims in the political arena, business has built a wide variety of organisations which seek to speak on behalf of all or part of business” (McEachern, 1991, p. 135). This has been evident in the media’s coverage of climate change (discuss further in Chapter 5), which demonstrated the power of business lobbies in Canberra to dissuade the government from observing the fundamental principles of climate change policy in 2009 (Maddison & Dennis, 2009).

Some critics view the presence of business lobby groups as undermining Australia’s political culture which has successfully developed a *two-party system* (Marsh, 2010; Marsh, 1995). The Australian Labor Party emerged as a mass political movement in 1891. Later, the 1909 merger of the Protectionists and Free Traders led to the formation of the modern Liberal Party by Sir Robert Menzies in 1946. This two-party system has encouraged duopolies and, at times, quasi monopolies (James, 2010; see also Curran et al. 2010) in sectors, including retail (Woolworths vs. Coles supermarkets), telecommunications (Telestra vs. Optus), banks (group of four), and print media (News Limited vs. Fairfax). However, a general connection between

the two-party political system and duopoly in the media system is not adequately substantiated because in other countries, with similar two-party systems (e.g., the US and UK), significant diversity in media and other sectors exists. As in many other countries, the ideological tension between the two main parties (Labor and Liberal) is not great because both are predominantly driven by ‘market values’. The ideological indifference is further evidenced by the fact that both parties try to “capture the Middle Ground” (Jaensch et al., 2005); that is, try to win the right to govern by convincing and persuading constituencies of the legitimacy and benefits of their policies.

The policy-making capacity of the major political parties puts them in a formidable position when it comes to formulating media policy in Australia. Within this two-party political system, both the Labor and Liberal parties mould their media policies in accordance with their close interactions with influential media proprietors, such as the late Kerry Packer and former Australian citizen Rupert Murdoch (Griffin-Foley, 2003; Masters, 2006).

2.4.2 Political System: Bangladesh

Bangladesh (formerly East Pakistan) achieved independence from Pakistan in 1971, after a bloody liberation war. Since then, the country has undergone a number of political upheavals. The toppling of its first democratically elected government in a military coup in 1975 ushered in a decade and a half of military rule. In fact, some have argued that Bangladesh has struggled twice for its freedom, first to obtain independence from Pakistan in 1971, and then its move from a military junta to installing electoral governance in the early 1990s. Mass and student uprisings against the military rulers paved the way for their exit and the re-establishment of democracy in 1991. Since then, Bangladesh has had five national elections to its unicameral legislative council, the 300-member national parliament (the Jatiya Sangshad).

However, the institutionalisation of democratic practices in politics is still tenuous (Khan, 2003) as power is still heavily concentrated in the upper echelons of government, a consequence that has been widespread corruption across government establishments, which

has affected the entire population. In addition, the mainstream political parties' lack of democratic culture permeated other areas of social life, resulting in intolerance and the various negative effects stemming from the lack of democratic governance. As Khan writes:

Both the supreme leaders of the two major political parties, i.e., the Awami League and Bangladesh Nationalist Party, were handed top leadership positions for reasons of heredity and kinship. This permanent nature of supreme leadership thwarted internal democracy in the political parties (Khan, 2003; p. 391).

Such lack of democratic practice has resulted in a wide range of problems, including the politicisation of public bureaucracy, lack of accountability and transparency, and inefficiency in public offices (Zafarullah & Siddiquee, 2001). The term 'politicisation' here refers to interventions of politicians in various functions of public bureaucracy and other areas, such as educational institutions and businesses. Politicisation becomes particularly prominent and criticised when public service officials exchange political loyalty for personal favours, including promotions and lucrative postings. Within this process, public bureaucrats become enthusiastic supporters of party policies and lose the professional ability to provide efficient policy support to the government.

Because of the unchallenged 'supreme leadership' convention in party politics, the country's parliamentary system has virtually transformed into a 'Prime Ministerial system', whereby policy decisions are frequently confined to the Prime Minister's office. The fact that a Prime Minister enjoys the unconditional and total support of her/his party's legislative council members has given rise to a "highly personalized and centralized style of governance with a strong sense of partisanship" (Kochanek, 2000). In theory, while a Westminster-style elected parliament has replaced the previous presidential system, in practice the parliament has become a platform for passing legislation initiated by the government, but subject to very little deliberation and scrutiny. Various groups in society, e.g., opposition political parties, international donors for development, and civil society organisations in general attempt to scrutinise and influence the legislative process. They often express their concern vis-à-vis ongoing crises including widespread corruption and mismanagement in different sectors.

Governments in Bangladesh are often at odds with civil society organisations, which are vocal critics of various public policies. Successive governments have accused these organisations of being prejudiced against the public sector, because many operate as ‘not for profit’ non-governmental organisations (NGOs) and are accountable only to their overseas financial backers, not to the government. The integrity of some of these NGOs is also questionable given that they operate commercial ventures while enjoying and claiming non-profit status. At times, the relationship between the government and civil society organisations becomes tense, particularly when the government accuses the advocacy programs run by some NGOs of intervening in the country’s internal affairs and challenging the legitimacy of the state (Parnini, 2006).

As suggested above, the accountability and legitimacy of the government’s activities are constantly under scrutiny. As Khan (2003) rightly argues, governance in Bangladesh is based on secrecy and a fundamental lack of accountability, both of which are endemic in all sectors including the governance of media. It may well be that the root of this secrecy and lack of accountability in the public sector lies in an old draconian law, the Official Secrecy Act 1923, and its offshoot provision in the Bangladesh Service Rules. Reminiscent of British rule in India, this law prohibits the release and receipt of any government information without official authorisation.

2.4.3 Summation

Despite sharing an historical past as colonies of the British Empire, and despite being current members of the Commonwealth, the political systems of Australia and Bangladesh evince a wide range of differences that date back to the inception of the two countries. Whereas Australia was separated from the British Empire in 1901 through political negotiations, Bangladesh severed its links with Britain in 1947. After a long and often turbulent independence struggle, the Indian sub-continent was partitioned and East Bengal became East Pakistan. Later, in 1971, the country gained independence from Pakistan following a bloody war of liberation. With time, however, the political environment in Bangladesh has worsened

due to frequent natural disasters, a burgeoning population, and poor governance. Australia, on the other hand, has enjoyed a stable period of economic growth as well as healthy political practice, making it one of the longest-serving continuous democracies within the western political system. Australia's political system has remained consistent regarding the primacy of the private sector, which not only helps to maintain a competitive edge for the economy in the global market, but ensures a strong relationship between business and politics. In Bangladesh, by comparison, there is an overall dominance of politics in society. This is visible in the politicians' ability to intervene in private sector business affairs albeit a certain level of reciprocal relationship exists between business and politics.

These differences in the two countries' political system have obvious implications for their respective media practices. However, there is little obvious manifestation of difference in the media systems of the two countries. Both private and public sector media organisations coexist with each other albeit with varying degrees of audience access, overall influence, and regulatory regimes.

2.5 Media Systems

In this section I consider the different media systems across the world, and identify some similarities and differences among them, particularly in the sphere of professional media practices and norms. Discussion of the media systems will facilitate an understanding of the professional practices relevant to the use of news sources in Australia and Bangladesh. Scholarly insights, for example "all states and media systems are authoritarian; it just depends upon who is the authority -- political power or public sanction" (Merrill, 2004, pp.14-17, in Josephi, 2005), will also help position the subsequent discussion about media systems in the two countries in a broader context.

2.5.1 Overview: Media Systems

For the purposes of this thesis, I have drawn from a number of analyses of media systems, including those of Josephi (2005) and de Beer & Merrill (2004). This body of work can be divided into three streams. Although they are not chronological, they are interspersed with each other at different levels of analysis.

First, the classical stream, which commenced in the mid-1950s, was characterised by Siebert, Peterson & Schramm's (1956) seminal work titled the *Four Theories of the Press*. The authors viewed the news media's role in society from a political perspective, then divided the world of journalism into four categories: the authoritarian model (early-modern England, contemporary Iran, Paraguay, Nigeria); the libertarian model (United States, Japan, Germany); the communist model (China, Cuba, North Korea, Russia); and, the social responsibility model which emerged from the United States. But, as yet, no country or region fits into this social responsibility model. From the mid-1950s to the early-1990s, several generations of scholars and journalists were heavily influenced by the philosophical assumptions of this 'Four Theories' model. They subsequently conducted a range of investigations and produced numerous international textbooks (McQuail, 1994; 1983; Wright, 1976), their aim being to provide a 'panoramic view' of journalism around the world (Merrill et al., 1983, p. xi). One of the strong criticisms of this landmark Four Theories study and the subsequent investigations is that they had attempted to universalise the experiences of the United States and Great Britain as representative models to the rest of the world, thus assuming the supremacy of western capitalist democracy as a political ideology.

In subsequent investigations during the 1990s, which saw the second stream, scholars challenged the Four Theories model criticising it as monolithic and demonstrative of a "lack of knowledge about other media systems" (Curran & Park, 2000, p. 4). In their groundbreaking work titled *De-Westernising Media Studies*, Curran & Park observed that the normative values of Western media practices, e.g., liberty, equality and solidarity, seemed to have universal appeal. However, the dynamics of the relationship between media, state and the public varied across different regions and countries (Merrill, 2004). In this stream, the

main focus was on the media, society and political systems. In other words, the main question driving these studies was: what influences and controls the media? The scholars in this stream adopted an interpretative qualitative method for the purposes of their investigations.

Hallin & Mancini (2004) proposed three models of media systems: (1) the Polarised Pluralists model practised in France, Italy, and Spain; (2) the Democratic Corporatist model found in Finland, Switzerland, and Germany; and, (3) the Liberal model which they saw as prevailing across Ireland, Britain and North America. These three models were considered to be another initiative demonstrating that the “Anglo-American model is not the one that fits the rest of the world” (Joseph, 2005, p. 580). Here, the Polarised Pluralist model stepped away from the conventional way of looking at the practice of journalism, creating scope for developing countries to explain their journalism beyond the existing dominant frame of *development journalism*, which emphasised the key role of journalism in fostering national development (Xiaoge, 2009).

Critics raised questions about the applicability of these models to actual situations; as well, they questioned their implications for the existing western model of journalism across the world. It was from this level of analysis that critics (Joseph, 2005; Wasserman & de Beer, 2009; Hallin & Mancini, 2012; Curran et al., 2010) shifted the focus of analysis from the political purpose of journalism to more specific practices of news work. In other words, the ways in which different tasks in the production of news are performed have been the focus of the above studies. These studies can be identified as the third stream of investigation in the area of media systems.

The above three streams of research provide the background for the comparisons made in the empirical sections of this thesis between newspapers from the First and Third worlds. This background puts into context the following brief outlines of the media systems in Australia and Bangladesh.

2.5.2 Media System: Australia

Australia, which has existed as a modern state for more than two centuries, has experienced a strong presence of newspapers due to the advent of mechanical printing in the mid-nineteenth century (Lawe-Davies & Brocque, 2006). From the 1920s on, the gradual introduction of radio and television broadcasting in the public, private and community sectors has seen the news media develop into a vibrant market. Despite the diversity of various media, the media system in Australia has been characterised by the most concentrated ownership of commercial media in the developed world (Joseph & Richards, 2012; Independent Inquiry into the Media and Media Regulation, 2012; Tiffen, 2010). Concentration is particularly evident in the sphere of newspaper ownership, wherein Australia is ranked highly compared to other like nations (Independent Inquiry into the Media and Media Regulation, 2012; Tiffen & Gittins, 2009; Harding-Smith, 2011). As well as the press, concentration of ownership also has a place in free-to-air broadcasting. Although Australia has developed a ‘dual system’ of broadcasting ownership, combining a US-style commercial operation with a UK-style public broadcasting system, ownership in the commercial sector is highly concentrated, with only a handful of operators.

The introduction of this ‘dual system’ has not been without contestation. While some labelled it “the best of both worlds”, adding that it contributed to an informed citizenry essential for the success of Australia’s compulsory voting system (Jones & Pusey, 2010), Joseph & Richards (2012) were quite critical of media ownership concentration in Australia: “One of the side effects of this situation has been intermittent but ongoing tension between public and private media, especially since the establishment of the Australian Broadcasting Commission (later Corporation) in 1932, and the Special Broadcasting Service in 1978” (2012, p. 115). In order to understand the origin of such tension, it would be beneficial to try to determine the position of Australian media structure in the previously discussed media system models.

Hallin and Mancini (2004, p. 7) see Australia’s media system as a Liberal model characterised by a democratic political system and the rise of highly-professional and information-based journalistic practices. Jones and Pusey (2010), who contest this

categorisation, provide several reasons for arguing against the Australian media system fitting into the North Atlantic Liberal model. Their reasons include the relatively “late professionalisation of journalism” (Henningham, 1996), and the low educational qualifications of journalists in Australia compared to levels in other advanced democratic societies (Weaver, 2005). Jones and Pusey (2010) add that not only the education and professionalism of journalists, but also some government policies significantly impeded the development of the Liberal model. One example is the convention of appointing a Chairman to the Board of Directors of the Australian Broadcasting Corporation (ABC). Often, the government of the day chooses a Chairman according to its political preference. Another example is the controversial “Murdoch Amendment” introduced by Malcolm Fraser’s Liberal government “in the late 1970s to facilitate [Rupert] Murdoch’s concentration of television ownership” (Chadwick et al., 1995, p.67). In response, media owners were strongly inclined to intervene in the political world (Chadwick, 1996; Griffin-Foley, 2003). Interventions of this type confirmed many politicians’ observations that media owners had the capacity to influence election results. According to Jones and Pusey (2010), these policy conventions go against the Liberal model of the media system, in which news organisations should enjoy constitutional guarantee of independence from the government of the day.

In answer to their critics (Chadwick, 1995; Griffin-Foley, 2003), Jones and Pusey (2010) argue that while the Australian media system might not fit into the North Atlantic Liberal model, it could fit into what they term the ‘Mediterranean Polarised Pluralist Model’, a model strongly distinguished by political parallelism. This means that in effect the news media provide unquestioned support to certain political parties, in the process forfeiting (or heavily undermining) their own professional norms. In this respect, the findings of some recent investigations (Bacon, 2011; Independent Inquiry into the Media and Media Regulation, 2012) are highly relevant to this discussion. The fact that investigations provide a diverse picture of media practices makes it difficult to neatly categorise Australia’s media system into one model or the other. News media practices are generally identified as partisan in these studies. For example, Bacon (2011), who examined the news coverage of the Australian government’s climate policy, found that News Limited publications campaigned against the climate change policy instead of reporting on it. Fairfax publications, on the other hand,

provided a far more balanced coverage of the issue. So, if one takes into consideration News Limited publications, the Australian media system does appear to reflect political ‘parallelism’; but such is not the case with Fairfax and the ABC, which is a trusted source of information for the Australian public (Independent Inquiry into the Media and Media Regulation, 2012).

The principle of partisanship in the Polarised Pluralists model becomes more complicated when the perceptions of Australian journalists vis-à-vis their profession are considered. Journalists generally agree that the professional norms to which they adhere give credibility to their profession and institutions (Joseph & Richards, 2012; Das, 2007). Yet, public confidence in journalism and the media institutions, particularly the commercial institutions, has reached an all-time low. At the same time, the public broadcasting system, especially the ABC, continues to enjoy a high degree of public trust as a reliable source of news and current affairs (Independent Inquiry into the Media and Media Regulation, 2012). This scenario complicates the ability to draw a simple conclusion about the professional standing of a country’s journalism or media organisations.

2.5.3 Media System: Bangladesh

The media system in Bangladesh is quite diverse, particularly in terms of ownership; but the causes of this diversity of both the print and broadcasting media have to date failed to attract scholarly attention. Only recently has discussion surrounding the country’s media systems, particularly its broadcast media, started to surface. This may have been prompted by the following factors: (1) there has been unprecedented expansion of the television industry in Bangladesh since 1997, when the first television channel in the private sector was introduced. By 2009, the number of television stations in Bangladesh reached nineteen, which has a Gross National Product (GNP) of only \$440 per capita (Rahman, 2009). (2) This rapid growth had adverse effects on the practice of journalism. The production of news in Bangladesh has always been at the centre of controversy: all of the political parties, and many civil society organisations, accuse the news media of being biased towards particular political parties (Chowdhury, 2003).

By contrast, news media in the other non-western societies have been deemed as ‘effective development change agents.’ Some critics consider this to be the principal characteristic of eastern patterns of journalism (Gunaratne, 2007; Chowdhury, 2003). However, concomitant with the market liberalisation of the broadcast industry, the role of news media has shifted from ‘development change agent’ to one of informing and entertaining audiences. But notwithstanding, the notion of ‘change agent’ is still alive and active in the public service broadcasting network of the country, i.e., Bangladesh Television (BTV). From the time of its inception in 1964 until now, BTV’s free-to-air terrestrial channel has enjoyed a wide audience base across the country. Its popularity is due in the main to its accessibility in the remote rural regions. The emerging satellite broadcast channels cannot reach these areas due to technical inaccessibility. As well, rural audiences generally cannot afford to subscribe to expensive private channels. At this point, one could argue that the media system in Bangladesh demonstrates dual characteristics: a US-style competitive deregulated private-sector television industry, and British-style taxpayer-supported public service broadcasting.

However, unlike in Australia and the UK, where public service broadcasters are the exemplars of best practice in journalism, BTV has been playing an extremely partisan role, consistently acting as the mouthpiece of the ruling government of the day (Roy, 2006). In Bangladesh, broadcaster faces severe criticism from many quarters for this role: its professional integrity as a news provider has always been in doubt. However, there is an interesting twist in the operation of this public broadcaster; it sells broadcast time to commercial advertisers, despite being treated as an agency under the Ministry of Information and being totally funded from the government’s revenue budget. BTV’s rate of advertising is much higher than that of other private channels which supposedly enjoy much more professional freedom and standing as news providers. BTV charges up to 75,000 Taka (US\$1,088) a minute for advertising (Roy, 2006). This high rate of advertising time demonstrates a contradiction; on the one hand, it may be argued that despite its partisan nature, the public service broadcaster is commercially more viable than the commercial media. On the other hand, the high rate charged for advertising does not necessarily translate into high power for the station. In effect, the editorial policy of BTV news remains

subservient to the government of the day. According to the capitalist notion of the press (Curran, 2002), economic emancipation was quite critical for the independence of news media from state control which was made possible largely due to advertising revenue. However, this notion of commercial power enhancing the editorial power of a news organisation clearly does not help to explain the case of Bangladesh TV.

Bangladesh experienced satellite broadcasting for the first time in 1992, in the form of transmission from BBC World and CNN International. As of 2014, the country has 21 television stations, including terrestrial and satellite services, indicating that television services constitute an influential and lucrative area of investment for private ventures. Understandably, the fact that competition for the audience share is fierce among these stations, has negatively affected the channels' news services. News, one of the most popular television genres in Bangladesh, enjoys approximately 66 per cent of audience share compared to other programs such as drama, cinema, and talk shows (AC Nielson, 2006). However, due to steep competition, the role of news services has gradually been shifting from orientation towards 'socially responsible' to 'market oriented' journalism in this emerging media climate, a phenomena shared by many industrially advanced countries (Curran, 2002; Hallin, 1996; Iyengar, 1991). Market oriented journalism is characterised by personalised and decontextualised news which focuses more on events and individuals than on the broad underlying causes of various social issues and developments.

Studies of ownership of the television industry in Bangladesh have revealed that the ownership is not confined to 'extremely rich people' with strong political connections only: it has extended to politicians from the country's two main political parties, the Bangladesh Nationalist Party and Bangladesh Awami League (Rahman, 2007; Roy, 2006). From this, it may be inferred that Bangladesh's media system broadly fits into Hallin and Mancini's (2004, 2012) Polarized Pluralist model, which entails partisanship as a fundamental element of the functioning of news organisations (McCargo, 2012). Other aspects of this model include strong state intervention, a tendency towards instrumentalisation of the media by political and economic elites, a weak journalistic professional culture and low newspaper circulation numbers. These aspects are to some degree evident in Bangladesh's news media, albeit with

some exceptions and variations. For example, it would be inappropriate to accuse the different media in Bangladesh having a weak journalistic professional culture. In particular, the country's print media, which attracts 20 per cent of the total media audience, demonstrates a 'significant middle path' (Chowdhury, 2003) by not supporting either of the two mainstream political parties. In reality, the different newspapers are quite influential players in the field of news media in Bangladesh. However, this is not to suggest that all print media operate free from party influences. What I am emphasising here is that widely-circulated, high-profile newspapers including *Prothom Alo*, *Jankantha*, *Jugantor*, *Ittefaq*, *The Daily Star*, and *Daily Independent* have the capacity to play roles beyond the prevailing partisan practices, i.e., to set news agenda for other of the country's media.

The role of journalism in this country has been complex, so much so that use of polarising terms "neutral" and "participant" (Hanitzsch, 2005) seems barely adequate to describe it. Historically speaking, newspapers in Bangladesh have been intricately connected to various prolonged political movements, including gaining independence from the colonial British and post colonial Pakistani rule in 1947 and 1971 respectively, and establishing democracy by overthrowing a military dictatorship in 1990. Many journalists, particularly those strongly committed to 'social change', are ready to move beyond the professional mindset of the distant observer and neutral reporter to intervene in any situation that requires action. However, distancing themselves from the immediate political fray and upholding professional standards of accuracy, fairness and balance does not weaken their commitment to the liberal ideals of objective journalism (Anam, 2007; Ramaprasad & Rahman, 2006; Rahman, 2005).

The print media's 'middle path' position underpinning journalism's role in social change, together with state-run Bangladesh TV's partisan editorial policy and the highly commercial potential of its products, present a complex picture of the media system in Bangladesh. This rules out categorising the country's media system into one particular model, although the Polarized Pluralist Model (McCargo, 2012) is probably the closest. However, the argument here is not to completely discard the applicability of this model, but to point out that the actual picture is too complex to describe the whole media system as one single model.

2.5.4 Conclusion

The above discussion renders the sharp differences between the two media systems reasonably explicit. Bangladesh's print journalism with its rising circulation and critical editorial standpoint is an influential element in the country's media world. In contrast, the print media in Australia, while unarguably influential, are accused of political bias. As a result, its circulation figures are declining. However, the picture is different in broadcasting, for whereas public service ABC is a credible source of news and current affairs for many Australians, the state-run BTV is viewed as very biased towards the government of the day. For this reason, it has minimum credibility as a source of news. As some commentators have observed, its strong editorial policy is directed towards serving 'the state' (Chowdhury, 2003), not the public.

In order to obtain a more detailed view of the two news media systems, it is necessary to examine their actual journalistic practices, for example, news content and the use of sources in news content. Paying specific attention to the products of journalism involves a shift in focus from generalising about all of the media operations in a country (that is, using a single model to describe a country's diverse media organisations and behaviours) to viewing news media as separate and independent political organisations. Such a shift allows an appreciation of differences between various news organisations within the media ecology of a single country. The salience of certain topics, or the use of sources in different news media, will facilitate an assessment of news media's diverse responses to crucial news issues. In this thesis, focus is upon examining news issues appertaining to river systems and climate change. Examination will provide an insight into how news media frame certain issues; for example, to exercise a political position or exert independent influence on public debates (see Schudson, 2002) surrounding these two interconnected micro- and macro-level environmental issues.

2.6 Summary

The above brief descriptions of the political systems, geographic aspects and media systems of Australia and Bangladesh show obvious differences between the two. In Australia, a century-long tradition of democratic practices has imbued its society with a certain character, different from that of Bangladesh. In terms of representative democracy, Bangladesh is at a very early stage, given that it has only been practising formal ‘electoral democracy’ for couple of decades or so. Apropos of geography, the divergence between the two countries is evident in two inherently different climatic conditions, the dry Australian landscape versus the low-lying, wet conditions in Bangladesh. However, an overview of the two countries’ river systems and climate change issues reveals that both countries place heavy reliance on their respective river systems (e.g., over-extraction of river water in Australia by primary producers, pollution of water ways in Bangladesh, and over-extraction of water by the upper riparian country of India).

The differences are also reflected in my brief review of the two countries’ media systems, together with a distinctive similarity. There are differences in the ownership structures of their press systems, as well as in the modus operandi of their public service broadcasting systems. Differences are also evident in the ways in which the general public in the two countries perceive the credibility and value of these media operations. The similarity involves the difficulty of using a single conceptual tool (a particular model of media system) to describe the whole array of media operations within a country. While I do not suggest that Australia and Bangladesh have similar media environments, one faces considerable difficulty when using a single concept to explain various aspects of media practices (e.g., ownership patterns or perceptions of professional norms) in the two countries. This could potentially offer a nuanced understanding of the selection and representation of the various sources underpinning the coverage of river systems and climate change.

Chapter 3

News Sources, Journalism and the Study

3.1 Introduction

This chapter provides an overview of the studies of sources in journalism, particularly the use of sources by journalists. Focus is also on the notion of framing, and how it facilitates analysis of the presence or absence of sources in news content. It is plausible to argue that ‘sources make the news’ given that they are not able to shape the news in exactly the way they would like (Tiffen et al., 2013, p.2; Ericson et al., 1989). In effect, journalists play a significant role in the framing of news by including or excluding certain materials and sources. This study emphasises the role of presence of sources as crucial indicators of the pattern of source dominance in news pertinent to river issues and climate change in Australia and Bangladesh. Examination of the pattern of source dominance will reveal how representations of particular topics in the news are formulated; and how the attribution of responsibility, which is an important news frame, is influenced (Iyengar, 1991).

3.2.1 Who Speaks in News Content?

As suggested above, whose voice is present or absent in news content is a crucial point in analysing journalism. In the current study, presence and/or absence are examined by analysing news sources. A ‘source,’ that is, a provider of information relevant to news content, can be an individual, a group, an organisation, or other materials. Without sources, “modern news is unimaginable” (Carlson & Franklin, 2011, p.1). Journalists use sources for various practical reasons including incorporating witness observations of news events (direct quotes), providing validity to news articles through verification of accounts with the statements from “authorised knowers” (Tuchman, 1978), and illustrating competing arguments (Dimitrova & Stromback, 2009, p. 76). Critics argue that in the presentation of competing arguments:

News is a representation of authority. In the contemporary knowledge society news represents who are the authorized knowers and what are their authoritative versions of reality. As such, it is every person's daily barometer of 'the knowledge-structure of society'. It offers a perpetual articulation of how society is socially stratified in terms of possession and use of knowledge (Ericson et al., 1989, p. 3).

News is, in fact, a symbol of authority because it prioritises socially sanctioned knowledge about different issues as well as the views of "authorized knowers" holding significant positions in various social institutions. However, if journalism is considered to be the principal driving force of the public sphere "as journalists themselves do" (Habermas, 1991; 2006, p. 54), it is essential to look not only at authorised knowers, but also at the whole spectrum of sources of news irrespective of the sources' positions in the hierarchy of social power. Such comprehensive scrutiny would enable determination of who possesses the power to define news and who do not (Cottle, 2000; Schlesinger, 1990). The imbalance of power among the providers of information to journalists has always been the crux of the study of news sources (Bell, 1994; Franklin et al., 2010). In the sociology of news, such issues have been examined through the 'extremely complex' web of interactions between the sources and journalists, which are manifested in what they interact about and how their interactions are structured.

3.2.2 Contestation: Sources versus Journalists

When attempting to decipher this 'extremely complex' web of interactions, scholars have focused on who is powerful in the negotiation of producing news. Indeed, the issue of power has dominated the debate surrounding source–journalist relationships for more than three decades (Chibnall, 1977; Gans, 1979; Schlesinger, 1978; Fishman, 1980; Sigal, 1973; Tuchman, 1978; Tunstall, 1971). Within this debate, many critics have argued that the interactions between the two sides are built on a reciprocal relationship in which journalists

seek information, and sources, in turn, seek access to news media. There is mounting evidence to suggest that this relationship is symbiotic albeit in most cases, the sources enjoy an advantageous position over the journalists and lead the interactions (Sigal, 1973; Gans, 1980; Nord & Stromback, 2003). Critics adopting a sociological and political communication approach (Manning, 2001, Bennett, 2003) suggest that the newsroom culture, especially the deadline-driven news production process, renders the journalists particularly source-dependent (Stromback & Nord, 2006, pp. 148-149). This process, which of necessity requires information-rich sources at short notice, and puts the sources in an advantageous position.

However, those who disagree with this view of the journalists' reliance on sources argue that what occurs in the interaction is not a unilateral domination by sources but an ongoing 'negotiation of newsworthiness' between journalists and sources (Ericsson et al., 1989; Cook, 1998). During this negotiation, both the sources and the journalists attempt to control key information resources, and the outcome is not predetermined in favour of the sources. "Acting as gate-keepers, journalists are in control of visibility, the extent to which sources should get the attention that they are seeking, and the tone of the news stories" (Stromback & Nord, 2006, p. 148). On the other hand, the sources are in control of information, i.e., the power to decide what type of information they would provide to the journalists. Also, powerful sources have the capacity to legitimise a particular version of a news story. Thus, both parties come to this relationship possessing a particular power (control over visibility or information) and with a certain vulnerability (seeking information or visibility).

This relationship engenders 'negotiation' that is carried out by different actors from both sides to determine what a news story should be about and when and how a story should be made public. The 'negotiation of newsworthiness' occurs at different stages; for example, in the process of news making, that is, negotiations concerning "where and when interactions [between the sources and journalists] will occur", and in the concern regarding the 'content' of a news story. In other words, "what the story will be about and how it should be framed" (Cook 1998, p. 250).

However, to date, critics have paid little attention to how journalists position themselves strategically against any powerful institutional or ordinary sources in any cross-national context. Most of the scrutiny in this area has been conducted in the context of Western media systems, particularly in the US (Joseph, 2005). This has rendered the extant body of literature particularly inadequate for understanding the contestation of power between sources and journalists in the non-Western contexts (Waisbord, 2010). In effect, the literature fails to provide an effective comparison of source-journalist interactions between the Western and non-Western contexts, leaving the similarities and differences between them inadequately understood.

The contestation for dominance among the various sources and the degree of leverage they are able to garner in the production of news is quite useful for understanding the representation of sources in which the news media both support and, at times, challenge the sources. This study assumes that both support and challenge stem from the contestation between the sources and journalists. It would thus be more productive to examine different sources' roles in news content and the debate surrounding said roles. In the following section, the focus is upon a number of significant actors who are involved in the construction of news, e.g., politicians, bureaucrats, experts, and activists.

3.2.3 Politicians and Officials as Dominant Sources

Habermas (2006) views politicians and journalists as two important actors in the public sphere; without these actors, the public sphere is deemed to be inoperable. Although the above two represent the core, there are also at least five other types of actors who operate in the public sphere. These include lobbyists representing the interests of certain groups, experts credited with skills and knowledge, moral entrepreneurs calling public attention to a supposedly neglected matter, advocates representing marginalised groups, and intellectuals who have gained personal recognition for their contributions to particular fields.

Schlesinger (2009), who disagrees with this view, maintains that taking politicians and journalists as the main actors signals a 'media centric' approach to the examination of source-media relationship. Rather, he suggests focusing on macro-level interfaces between the government, media and other civil society organisations. This will enable the identification of the communicative strategies of various actors (bureaucrats, experts, activists etc.) in the contested world of news making. Despite the significance of the different voices in the news media, the platform from which information is disseminated remains heavily dependent upon political and official sources for raw material of news. Such dependence raises questions about the quality of information in any democratic communication system (Bennett, 2009). This dependence can be explained through the journalistic process of verification and, in particular, how verification works under deadline pressure. As Manning asserts:

The pressure of news deadlines and the importance of obtaining information rich in news values encourage dependence upon official sources, whether they be government departments, sources associated with parliaments and formal policy-making process, the police or the other state control agencies (Manning 2001, p. 55).

The official sources to which Manning alludes are credible because the information they provide can be published without further research into its veracity (Ericson et al., 1989). Although this reliance on official sources risks reproducing the views of the powerful actors only, the journalistic conventions of news collection continue to rely on the 'hierarchies of credibility' which emanate from the authority of source institutions (Becker, 1967; Ericson et al., 1987). The relentless production of news round the clock is possible because the official authoritative institutions generate a huge amount of information into which news media are able to tap as raw materials (Tiffen, 1978). Thus, the relationship between politicians and journalists is unequal because the latter are significantly reliant on the former and other official sources for their raw material.

The adversarial role of journalism requires reporters to ensure the credibility of their content by testing and corroborating the assertions of dominant sources (e.g., politicians) along with perspectives from other sources (e.g., the experts). As van Dijk argues, the “media tend to use ‘experts’ whose reputations and qualifications add weight to the argument being made, influence the way events are interpreted, and set the agenda for future debate” (quoted in Rowe et al., 2004, p. 161; also in Boyce, 2006).

3.2.4 Experts as the 'Efficient Machinery of Record'

Few studies have shed light on how journalists use news sources to inform the citizenry and to what extent they do this responsibly and appropriately. Critics (Bell, 1973; Giddens, 1990; Albaek et al., 2003; Ericson et al., 1989) have greatly emphasised the significance of experts in modern knowledge societies due to increased use of scientific and technological knowledge. Similarly, Giddens (1990) in his book titled *The Consequences of Modernity* writes that modern societies are becoming increasingly reliant on “highly specialised expert systems” not only for solving their problems, but also for appreciating the complexities of the modern world. This is one of the reasons why journalists need experts as sources to assist them with information and interpretation of the day’s issues.

Drawing upon Walter Lippmann, Schudson (2006) examines the position of experts in journalistic practice and claims that citizens do not receive a picture of the world from the news content in a straightforward way; rather, they perceive it through the stereotypes provided by the press. If journalists depend upon trustworthy experts as an ‘efficient machinery of record’, news content becomes more reliable. The importance of the role of experts’ representation of different issues in the news is evident here. However, it is essential to define the term ‘expert’ clearly. For Lippmann (1922), experts are those who try to “put aside their own interests and wishes when they examine the world were the best hope to save democracy from itself” (Schudson, 2006, p. 492). Schudson, on the other hand, places more emphasis on the skills and esoteric knowledge of the experts, which allow them to be

recognised as such in the wider society as well as in their profession. But, the problem is how can experts maintain their independence in the face of potential pressure? Schudson observes that:

Every governmental use of expertise is ultimately under the control of democratic authorities ... Actual problems about expertise in democracy are generally of two sorts. First, what are the best institutional mechanisms for keeping experts responsible to the people's representatives—while still enabling their expertise to bear on and improve decision-making? ... Second : how does democratic authority give experts enough autonomy so that the voice of the expert represents the experts' expertise rather than the views of the politicians or bureaucrats who pressure the experts into submission? (Schudson, 2006, p. 497)

When experts profess their loyalty to the powerful rather than to their professional ethics and standards, this may lead to 'groupthink' pressure (Newman, 2010) within organisations that prevents the experts from freely and fairly representing their views. Drawing upon the Abu Ghraib prison torture incident in Iraq in 2003-2004, where the medical doctors were well aware of the torture inflicted on the prisoners by their captors, it may be asserted that experts often provide only the advice the politicians want to hear, and misrepresent the issue (Schudson, 2006).

Overall, these perspectives illuminate the relationship between politicians and experts as news sources, in the process providing a context for further expansion of the issues. Thus, the following section considers the implications of the use of expert sources in news.

When investigating journalists' reasons for using experts as sources and the nature of the interactions between them in three Danish newspapers, Albaek and co-authors (2003; also Albaek, 2011) identified a recent shift in the news production process which rendered 'journalism by the journalist' more powerful than journalism by other newsmakers. As a

result of this shift, according to Albaek and his co-authors, journalists are now more prominent in the news content than individuals from dominant powerful groups, e.g., politicians, business executives and professionals. In other words, compared to the above groups of individuals, journalists occupy considerable room in the news. Simultaneously, the practice of journalism is also shifting from descriptive (i.e., mainly authoritative sources describing what is going on) to more interpretative and investigative narratives in which the journalist employs diverse expert sources to ascertain not only *what* has happened, but also *why*.

Albaek and co-authors also reveal that the use of sources in news content increased seven-fold between 1961 and 2001, similar to Patterson's (1991) findings in the US. Also, there has been the concomitant effect of the meteoric rise of sources, particularly expert sources; thus, journalism as a practice is becoming more independent from politicians and other news makers. This independence is reflected in the journalists' capacity to show scepticism to politicians and to replace 'political logic' with 'media logic'. The 'media logic' infers that "the requirements of the media take centre stage and shape the means by which political communication is played out by political actors, is covered by the media, and is understood by the people" (Albaek, 2011, p. 337).

Research has also revealed that selected experts or scientists seldom focus on or speak about their research results in the news media. Rather, they become increasingly involved in the political debates of the day. In the Danish news media, for example, scientists as expert sources are outnumbered by social scientists who have been chosen to speak, not for their expertise in particular fields but for the general public's interest in them and in particular issues. This raises questions regarding how news media select their so-called 'expert sources' in order to inform their readership.

Irrespective of journalistic reasons for the selection of expert sources and the quality of these experts in informing the citizenry, many critics (Weiler, 1983; Giddens, 1990; Schudson,

2006) accept that there is room for experts in democracy who may have the capacity to ‘speak truth to power’; that is, to clarify issues of public debate in order to make them clearer to both the politicians and the people. They can also be seen as agents for identifying injustice in policy-related questions, which can empower the general public. Viewed from this perspective, I deem it necessary for this study to explore the position of experts in the news coverage of river systems and climate change issues. The positions of experts and scientists will be examined through their representation in the four newspapers.

3.2.5 Activists and the Rise of Media Management

Concomitant with the rise of science and technology in modern knowledge societies, it is not only scientists and experts who are actively enhancing their presence in the public sphere; other organised and unorganised groups pushing their respective agendas are becoming more visible than ever before. Focussing on environmental issues, Hansen (2011) identifies the rise of different source groups as a ‘dialectical principle’ in the public sphere, groups comprising different voices and counter voices espousing their views on multiple local and global environmental issues.

Growing commercial pressure on journalism is also reflected in the shrinking news hole; and in increased media competition, which has increased the visibility of environmental issues as well as activists as sources receiving more media attention. Sources do not confine themselves to attracting media attention alone; they also attempt to, and in many cases successfully establish the legitimacy of their claims. Critics (Solesbury, 1976; Hansen, 2011, p.12) argue that the process of claiming legitimacy and ‘invoking action’ operates according to the “dialectic principle in the public sphere” in which every claim prompts a counter claim. Such principles often achieve extraordinary momentum due to the invocation of journalistic norms of ‘balanced’ reporting in which the news media employ sources from ‘both sides’ of a controversy or debate. Signitzer and Prexl (2007) argue that environmental activism has almost redoubled the activities of various business corporations to encounter, debate and

undermine the claims of environmental pressure groups in the Austrian news media. This finding is consistent with an earlier investigation by Sharon Beder (2002), who reveals how different corporate businesses in Australia engaged up-front activist groups to promote their interests in the public sphere.

Similarly, Davis (2008) comments on the meteoric rise of public communication professionals across the world which has changed the balance of power between sources and journalists. The capacity of public communication professionals acts proactively and initiates “access by proxy” or “third party endorsement” of the channelling of their messages through the news production process and managing or controlling the content. This development has blurred the identity of experts in the news, making it often difficult to differentiate between public communication professionals and actual experts in debate surrounding the public issues.

Similarly, several other studies undertaken in the US and Australia (Antilla, 2005; Boykoff & Boykoff, 2004, 2007; Gelbspan, 1998, 2004, 2005; Leggett, 2001; Lahsen, 2005, in Antilla, 2005, p.340; McKnight, 2010; Nash et al., 2009) demonstrate the implications of the selection of sources and of the particular positioning of them in the coverage of environmental issues including climate change. These investigations commonly find frequent usage of climate sceptics associated with the fossil fuel industry in the US and mining industry in Australia as sources of news. And, on occasion, such sceptical news sources become the dominant sources, while selection of these sources may fulfil the professional requirement of ‘balance’ for journalists in a mechanical sense, it ultimately undermines the premise of anthropogenic climate science in a significant way by creating a false notion of numerical balance regarding the issue (Zehr, 2000; Boykoff & Boykoff, 2004).

Many scholars have argued that the role of the news media is critical to understanding such positioning of sources. The above investigations reveal that anti-climate change sources are frequently portrayed in ways that allow them to present their “invalid, cynical and

unsubstantiated” viewpoints to legitimise the perceived “phoney controversy” surrounding anthropogenic climate science (Antilla, 2005). An important point to note here is journalists’ power of selection; on a day-to-day basis, journalists possess the basic power to include certain sources in and exclude others from the production process. From the above discussion of the false balance in environmental news, it is fair to suggest that this decision-making power is absolutely crucial to the contestation of power in the symbolic field of news media.

The selection and use of sources can lead to both symbiotic and adversarial relationships between the sources and journalists, depending upon the constantly shifting contexts of news making and structures of broad social power. The range of views about various sources offers a critical insight into the disposition of sources in different national contexts. But, the above review also makes clear that cross-national comparison of sources has yet to receive adequate scholarly attention.

3.3 Comparison of Sources

The above discussion has focused on the significance of various sources in the interactions between news media organisations and other institutions in society. Studies have highlighted the role of sources either as ‘testing grounds’ for scrutinising powerful institutions in society or as ‘conveyor belts’ for those institutions to convey their messages. However, these studies have in the main limited to the perspectives of a single country. For this reason, the relevance of the above studies is somewhat limited when seeking a meaningful comparison of source dominance and source-journalist interactions in different national contexts. As suggested in Chapter 1, very little attention has been paid to comparing sources in cross-national contexts. Given that the current study’s focus is upon comparisons of sources, the following section explores studies that compare news sources across national contexts.

Despite this lack of attention, it is possible to identify a number of studies which have specifically dealt with the use of sources in news content in different countries. These studies

have examined the issue of sources predominantly in relation to the effects of globalisation (Kim & Weaver, 2003) and the dominance of official sources (Traquina, 2004; Dimitrova & Stromback, 2009). Kim and Weaver (2003) compared patterns of news sourcing in the coverage of the 1997 Asian Economic Crisis and the IMF (International Monetary Fund) bailout in five countries (the US, Korea, Indonesia, Thailand and Malaysia). They found that corporate sources and economic analysts were greater in number in the American media compared to media in other countries, whereas government sources were predominant in the Asian media. Similar to the Kim and Weaver study, analysis of sources of HIV/AIDS-related news in four countries (the US, Portugal, Spain and Brazil) revealed an overwhelming dominance of official sources, including government and World Health Organisation officials who were responsible for medical and scientific matters (Traquina, 2004). The dominance of official sources was further evidenced in Dimitrova and Stromback's comparison of the use of sources in the US and Swedish newspaper coverage of three particular issues: war, elections and global controversy (Dimitrova & Stromback, 2009). In their study, the authors examined the 2003 Iraq War; the 2002 national elections in Sweden; the 2004 presidential election in the United States; and the global controversy surrounding the 'Mohammad' Cartoons in 2005/2006. They found official sources more dominant in Sweden than in the US.

A more recent study of the use of news sources in the 2009 European parliamentary election coverage in twelve countries (Austria, the Czech Republic, Denmark, Finland, Germany, Italy, Poland, Portugal, Romania, Spain, Sweden and the United Kingdom) also highlighted the importance of official sources; but particular focus was upon the influence of sources on the framing of politics in news reporting (Stromback et al., 2013). This issue of framing will be discussed further in later sections of this chapter.

Tiffen and colleagues (2013) have examined the "variations in news source patterns" across different news organisations in eleven countries, their intent being to identify the diverse ways in which various political cultures had been using news sources and to understand the role of news media in creating an informed citizenry. Tiffen et al.'s study examined print, television and online news content; as well, they conducted surveys of audience members in

Australia, Canada, Colombia, Greece, India, Italy, Japan, Norway, South Korea, the United Kingdom and the United States in an attempt to gauge the peoples' knowledge of public affairs. Their study found public service broadcasting in Italy heavily reliant upon government official sources; and its commercial media were diverse in source use. In contrast, the public service news media in the UK, Australia and India used more diverse news sources than their respective commercial counterparts. Drawing on Curran & Park's (2001) 'de-Westernising' media theory, Tiffen et al.'s study not only challenged the impact of globalisation and convergence in news practices, but argued that the use of sources was more heterogeneous than homogenous.

The above studies provide a general overview of the prevailing scenario in terms of source use across the world; and they clearly demonstrate the dominance of official sources in the political and economic news. However, there is a paucity of studies comparing the use of news sources in the coverage of a scientific policy debate (e.g., environmental issues) in diverse national settings. The above studies only examine the types of news sources: they do not throw light on the processes and rationales for source selections in the "manufacturing" of news.

3.4 Verification of Sources

Critics have indicated that all statements made by sources are 'questionable.' According to Tuchman, it is possible to empirically examine the degree of journalistic scrutiny by measuring the extent to which journalists verify claims made by the sources (1978, p. 84). Verification is entrenched in the professional ideal of journalism, which is oriented towards establishing 'truth' and 'fact'.

Truth-telling is a virtue in part because, as with so many moral matters, there's a strong element of reciprocity: even the most accomplished liars prefer not to be lied to or deceived. Thus, dishonesty is proscribed in most cultures, and areas where truth-

telling standards are relaxed are more or less clearly defined; story-telling art, entertainment, advertising and public relations, talk radio, and the blogosphere. Mainstream journalism, so called, is not one of them ... Indeed truth-telling per se is not enough. Good journalism must also be vigilant in order to expose, wherever possible, lies, evasions, deceptions, omissions and bullshit (Scheuer, 2008, p. 62).

Thus, it may be argued that the vigilant function of journalism through the exposure of wrongdoing in society is to represent independent reality (Lichtenberg, 1995). However, as Hannah Arendt contends, the “reality is different from, and more than, the totality of facts and events, which, anyhow, is unascertainable” (1977, p. 44). Journalists can only inform society about certain ongoing issues, not the whole of reality. All knowledge claims are partial and thematise one or a few of all possible subjects.

But, even ‘partial’ representations of reality require journalists to have “a consistent method of testing information” and a “discipline of verification” to assess the reliability and veracity of information or interpretation (Kovach & Rosenstiel, 2007, pp. 74, 77, 82; Swain-Robertson, 1995). Verification of facts is one of the central functions that journalists perform based on their professional commitment to truth. This verification is important, particularly when journalists are engaged “in competition with other powerful mediating institutions that produce information for persuasion or manipulation” (Kovach & Rosenstiel, 2007, p. 81).

As discussed earlier, professional claims to accuracy of the representation of reality are heavily reliant on the extent of reporters’ and editors’ verification of different sources. Reporters are perceived here as the “... providers of truth, or if not of truth, at least a reasonably reliable version of the facts” (Swain & Robertson, 1995, p. 15). Trustworthy versions of the facts are crucial for journalism wherein reporters are geared to deadlines and required to identify facts promptly to establish the “facticity” (Tuchman 1978). Tuchman claims that in news reporting, verification of facts is both a “political” and “professional accomplishment” (1978, p. 83). In line with professional requirements, reporters contact

sources; but, the selection of eligible sources for verification is a political decision. Selection is associated with the fundamental structural issues of journalism because it allows journalistic mastery and control that are the crux of ‘good journalism’, and helps to establish the legitimacy of “journalism’s authority in the community” (Glasser & Marken, 2005, p. 264). Notions of good journalism in particular underpin its watchdog role, manifested in investigative journalism that critically scrutinises the powerful, the aim being to expose any wrongdoing and enable journalism to win legitimacy as a central institution with far-reaching authority in a democratic society (Protess et al., 1991, quoted in Ekstrom et al., 2006, p. 292; de Burgh, 2000; Ettema & Glasser, 1998).

Critics (de Burgh, 2000; Ekstrom et al., 2010) have mainly examined the application of scrutiny or verification of the practice of investigative journalism because such reporting has a ‘watchdog’ role which ensures political accountability. As well, it uses a considerable number of unnamed sources (Duffy & Williams, 2011; Swain & Robertson, 1995). Ensuring the scrutiny of published information strengthens the reliability of facts because, in the process of verification, journalists ask their sources a range of adversarial questions. Verification via a kind of cross-examination is essential for the accountability of the privileged and powerful (Clayman & Heritage, 2002). Ideally, professional verification of sources (Ettema & Glasser, 1998; Kovach & Rosenstiel, 2007) should apply to all types of journalism. In controversial or highly technical matters, e.g., global climate change and local environmental degradation, the question of source citation, selection of sources and verification of their claims is of vital professional importance.

3.5 Attribution of Responsibility

While the verification of sources is significant in the production of journalistic content on any particular issue, it is also vital for journalists to interpret an issue/event by inferring what caused the event or issue to occur. In doing so, journalists attribute responsibility for events or issues to individuals, groups, organisations or institutions. Some previous studies

(Semetko & Valkenburg, 2000; de Vrees, 1999) have confirmed that journalists most frequently use the responsibility frame, conflict frame and economic consequences frames in their content. In the examination of the attribution of responsibility, significant critical attention has been paid to the two streams of scholarship including how news media represent various issues and how the audience members comprehend them. However, how news sources are framed in news content in relation to the attribution of responsibility has received a very little attention with few exceptions. In a recent study, Schnieder (2011) has examined the reporting of homelessness in three Canadian newspapers through a qualitative analysis of source quotations from homeless persons. In accordance with the findings of a previous research on poverty (Iyengar, 1991), this study demonstrates that the news media frame the issue of homelessness as a matter of individual responsibility. It argues that the ‘otherness’ is clearly visible in the selection of certain quotes from certain sources; but the study has not considered how journalists legitimise their selection of certain sources.

Following the above scant studies, the current study assumes that journalists maintain rigour of news content in two main ways: First, they attribute responsibility for certain issues to individuals, groups or institutions (e.g., government). This is critical to the exercise of civic control, and, a critical ingredient of all social knowledge (Iyengar, 1991). Attribution may be considered very much a part of the ways in which news media frame particular issues. Second, they engage in the above-mentioned verification of sources, although the resources provided for this task vary greatly from one newsroom to another.

The attribution of responsibility and verification of sources are interdependent. Journalists use various assertions made by sources to attribute responsibility; and, at the same time, these assertions need verification or corroboration from other sources to ensure truth and claim authenticity of news content. Iyengar (1991, p.4) argues that the attribution of responsibility in news items is the “product of stable internal predispositions, such as cultural values or political ideology.” Journalists develop their attribution of responsibility in news items by drawing on the their organisations’ political ideologies and culture. However, more local, specific ‘contextual or circumstantial’ factors can also play a compelling role in the

attribution of responsibility. For the present study, the significant contextual factors could be the news organisations' policy about environmental issues.

Attribution of responsibility is deeply embedded in how journalists present various news issues. The presence or absence of sources is also related to issues of news presentation. The notion of framing provides a good explanation for the presentation of news by media organisations. The above section discusses the presence and significance of sources by drawing on the sociology of professional journalism. The following section narrows its focus to the selection and representation of sources in the framing or construction of environmental news.

3.6 Why framing sources?

This study assumes that the notion of 'framing' is essential for revealing the unfolding of two enduring environmental problems (river systems and climate change) as news issues. As Gitlin (1980, p. 6) argues: "[F]rames are principles of selection, emphasis and presentation composed of little tacit theories about what exists, what happens and what matters." By discussing framing in relation to sources, this study aims to demonstrate that the selection and positioning of sources in the four newspapers contribute to the portrayal of environmental policy debates in a manner which seemingly justifies certain positions on environmental questions, may delegitimise others. The notion of 'framing' in particular helps to establish how and why journalists offer salience to certain events over others, certain sources over others, and what process they follow to give meaning to the various phenomena which emerge in the coverage of river systems and climate change (Tuchman, 1978; Pan & Kosicki, 1993; Entman, 1993). Examination of the visibility of some sources, the comparative lack of visibility of others, and the positioning of sources' quotations would enable this study to explore the classification of various actors from different social institutions and the positioning of them in the news.

In the broad field of media scholarship, the notion of framing is widely discussed; for example, framing as “an individual psychological process”, “organisational process and product, and a political strategic tool” (Entman et al., 2009; Ettema, 2010; Carpenter, 2007). Thus, framing may be perceived as both independent and dependent. For the purpose of this study, which focuses on the use of sources and framing of sources in the news content in Australia and Bangladesh, framing can be studied at two levels. First, at the individual level in which the selected news content may be examined to identify the attributions of responsibility inferred by the journalist. Second, at the organisational level, demonstrating how such inference through the attribution of responsibility allows the development of certain macro level frames, such as conflict and legitimacy, that can be examined. As is commonly known, conflict is a widely-used frame in the examination of election and war coverage as matters of contestation between two or more forces. Conversely, the legitimacy frame has rarely been used in any examination of news sources. An exception has been the area of political communication management where politicians and officials attempt to justify their policies using persuasion as a means of legitimacy.

Legitimacy framing of news, as a process of justification for beliefs or policy positions, is shared by both dominant and subordinates sides or the protagonist and antagonists of an issue (Beetham, 1991). This is particularly true in relation to the representation of the dynamics of environmental policy issues. The selection and citation of sources enable news organisations to ‘support and endorse’ as well as to ‘challenge and undermine’ certain policy positions. These two frames—conflict and legitimacy— allow the present study to determine the extent to which these frames support or challenge various positions in the local and global environmental debates in the two countries. Schudson (2011), who views framing as an organisational process and product, argues that as an analytical tool,

... [it] opens the discussion to examining unintentional (even unconscious) as well as intentional selective presentation. It (framing) diminishes the extent to which

evidence of selection can be automatically read as evidence of deceit, dissembling, or prejudice of the individual journalist (Schudson, 2011, pp. 30-31).

On the one hand, this understanding of framing allows going beyond the reductionist perspective of news practice often manifested in the notions of balance, accuracy and objectivity (Reese 2007; Schudson, 2011). On the other, it illuminates the process of selection of certain sources over others and the extent to which journalists seek to verify all of their sources with similar rigour.

The ways in which news media frame different events and issues, and the effects of framing on their audiences, have been comprehensively discussed (Nisbet, 2010; Reese, 2010; Iyengar, 1991). Any possible association between the selection of sources and the framing in cross-national contexts has, however, received little scholarly attention. As suggested earlier, this lack of attention has been considerable, particularly in the area of science policy coverage. But, some investigation in the area of political communication (Dimitrova & Stromback, 2012; Stromback et al. 2013) has been carried out. These studies, which compared the elections coverage in the US, Sweden and the European Union in television, revealed the political sources associated with the conflict (and strategic) framing of the politics during the campaign period. While relatively useful, these studies of broadcast news failed to provide an understanding of the association between sources and framing in the print coverage of environmental issues in two diverse national contexts.

This brief discussion of various studies of news sources and the significance of their representation highlights both the selection and presentation of experts and other sources in the news. Although the above review is far from exhaustive, it offers a platform for examining the journalistic capacity for mediating ongoing issues in the news and comparing this capacity in cross-national professional practices.

3.7 Empirical Methodology

3.7.1 Introduction

This section explicates the design of the study, its aim, i.e., the selection of content (two countries, two newspapers from each country, two news issues, and a period of two years), and the collection of data. As discussed earlier, the identification and description of issues (Chapter 4) found in news content is important for setting the context for analysing the presence or absence of various sources (Chapters 5 & 6) and their representations in the selected newspapers. The sources will be analysed as ‘objects of investigation’ by taking into consideration ‘contextual influences’ such as media systems in Australia and Bangladesh.

One of the purposes of this study is to initiate a discussion about the comparative characteristics of journalistic practices in Western and non-Western countries as they appertain to environmental issues such as river systems and climate change. It assumes that the different characteristics of news content reveal various journalistic practices. Thus, news content analysis is a suitable way of examining the differences in these practices and of obtaining a meaningful comparison of journalistic practices between the two countries.

The newspapers selected for this study are *The Australian* and *The Sydney Morning Herald* (Australia) and *The Daily Star* and the *Prothom Alo* (Bangladesh). The reason for these selections is discussed below. The study provides a general context for river and climate change news by highlighting the differences and similarities in coverage throughout 2008 and 2009. News content was examined to identify the types of sources, topics, item triggers, and attribution of responsibility for environmental problems. These variables are explained later in this section and detailed in Appendix 1.

3.7.2 Rationale for the Choice of Countries for Comparison

This comparison of newspaper content between an economically advanced, industrialised, “honorary Western country like Australia” (Curran & Park, 2000, p. 3) with its widely dispersed population, and a poor, agriculture-based, densely-populated Third World country like Bangladesh has proven quite challenging. As suggested in Chapter 2, the difference between these two countries is further emphasised by their somewhat contrasting geographical features: Australia is a dry, arid land while Bangladesh is a low-lying wet country, aptly called in common parlance the ‘land of rivers’.

Comparative studies are usually conducted between generally similar cases that are contrastive on one or only a few variables. In the field of Journalism Studies, very little comparative research has been undertaken as it is in the early stages of development (Hanitzch, 2009). Among the existing comparative studies in this field, similarity of cases is common. In addition, West-centrism is generally well recognised in this field (Josephi, 2005). But I will suggest that West-centric studies limit the empirical breadth of the existing literature. Thus, a comparison of dissimilar cases may prove beneficial for a number of reasons. First, comparative inquiries in Journalism Studies need diversification so that the current West-centric empirical narrowness can be adequately questioned, challenged and expanded. Second, comparing similar cases has led to “ideal typification” (Curran et al., 2010) by coupling ‘journalism’ with ‘democracy’ (Carey, 2007) and highlighting the nation-state as the foremost unit of analysis. Comparing dissimilar cases allows scrutiny of these taken-for-granted positions and assumptions.

For the above reasons, this thesis’ exploration of journalistic practices in two dissimilar regions is productive given that it allows what Downing terms “communication theorising to develop itself comparatively”, to go beyond the universalisation of the experience of a few unrepresentative nations such as the UK and the US (Downing 1996, p. xi, in Curran & Park, 2000, p. 3; Josephi, 2005).

3.7.3 Justification for Selecting Print Media

In this study, print media have been selected to examine journalistic practices in the two countries. The reason underpinning this selection is the continued importance of newspapers in the world of journalism despite the many changes brought about by newer technologies and subsequent developments. In many contemporary discussions, profound pessimism is expressed regarding the future of newspapers, with many identifying the printed newspaper as an ‘endangered species’ in the rapidly evolving media universe. As a contributor to the *Economist* magazine commented, “the business of selling words to readers and readers to advertisers, which has sustained their role in society, is falling apart” (*Economist*, 2006). However, some critics are less negative about the future of newspapers. Although they do not discount the declining circulation, they do not support warnings that newspapers will ‘vanish’ or ‘disappear’ anytime soon. Rather, in the face of stiff challenges, newspapers are adapting to the new media environment by changing their content, style, and design to suit a highly competitive and fragmented market operating on the platform of mobile telephony and the Internet (Franklin, 2008).

These contrasting perspectives have resonated in various discussions about print media in Australia (Tiffen, 2010; McKnight & O’Donnell, 2011), particularly in relation to Fairfax or News Limited publications. While the ‘business model’ of mass circulated newspapers is under threat—particularly in the industrialised Western countries—due to a shift in advertising revenue or the so-called ‘rivers of gold’ from print to online platforms (McKnight & O’Donnell, 2011; see also Media Watch, 2012), critics regularly dispute the notion that newspapers in Australia are turning into dinosaurs.

These so called dinosaurs also provide raw materials for radio talkback, TV news shows, other newspapers and the Twitterati ... Newspapers matters for other reasons. They and their journalists set the political agenda for electronic media and the Internet. Murdoch’s Sydney tabloid *The Daily Telegraph* and *The Australian* are said to be the

most influential news media in Australia, according to independent research (McKnight & O'Donnell, 2011).

The above quote clearly identifies the significance of the print media industry in Australia as an influential information and opinion provider, which shares many features with similar industries in comparable societies and markets (Manne, 2005).

At the same time, the print media industry has some features, which are quite distinct in particular countries or regions. The circulation trend is a case in point. Unlike Western industrialised countries, daily newspapers in many Asian countries have been experiencing a significant rise in circulation, particularly among the growing middle class and those who have limited access to broadband network. Newspaper sales in Bangladesh, for example, increased up by 30 per cent in the five years preceding 2006. This coincides with an Asia-wide surge in newspaper circulation. Currently, seven of the 10 best selling newspapers in the world are being published in Asia (World Press Trend, 2007; see also Merrill, 1995), despite the poor literacy rate in many Asian countries (for example, in Bangladesh only 56 per cent of the population is literate).

Due to their healthy rate of growth, newspapers in Bangladesh continue to thrive and play a strong role in the country's journalism as well as in politics and society generally. One rarely hears newspapers in this country being alluded to as 'dinosaurs' or 'endangered species' or criticism that their business model is 'falling apart'. According to official statistics, there are 467 newspapers in Bangladesh including 292 dailies; but, only a few dozen of these are substantial and regular publications with significant reader support. The continued rise in the circulation of newspapers means that Bangladesh's print media industry remains an important element of journalism and deserves continued scholarly attention.

3.7.4 The Selection of the Four Newspapers

The four major newspapers selected for this study have considerable bearing on their respective country's policy circles and are able to set the agenda of the day on crucial political issues. The similar positions of these newspapers in terms of prestige and influence in their respective countries render these publications "suitable for comparative analysis" (Benson & Hallin, 2007).

Over the years, these newspapers have meticulously scrutinised a range of environmental issues including problems surrounding rivers and climate change (Das et al., 2009). In Australia, *The Australian*, a widely circulated centre-right, national broadsheet was first published in 1964 from its headquarters in Canberra. *The Sydney Morning Herald*, the country's oldest continuously published newspaper, is a metropolitan publication. Many consider it to be "Australia's most important newspaper. It is one of the high-ranking oldest newspapers published from Sydney since 1831" (Isaacs & Kirkpatrick, 2003). As of 2012, the weekday circulation of *The Australian* and *The Sydney Morning Herald* was 133,701 and 184,613 respectively (Dyer, 2012).

The two Bangladeshi publications chosen for this study are broadsheet newspapers, based in the capital Dhaka, and privately owned by a leading media company. The English language broadsheet *The Daily Star*, which carries the slogan 'Your Right to Know' in its masthead, was established by prominent editor Syed Mohammed Ali (S. M. Ali) in the early 1990s. It is now part of a large media company. The Bangla language daily the *Prothom Alo* was founded by its editor Motiur Rahman in the mid-1990s. The publication is now part of the same company which owns *The Daily Star*. In general, many newspapers in Bangladesh, including the two selected for analysis, follow an editorial middle ground in politics, both supporting and criticising the government of the day. Although both papers can be considered centre-left dailies in terms of political outlook, the *Prothom Alo* seems to adopt a more adversarial position regarding different social institutions (e.g., politics and business) than the other

publication. Not only can it claim the largest circulation in Bangladesh, but its website is the most popular media site among local and expatriate online users. In 2012, its circulation figures numbered 437,450; and, at the same time, *The Daily Star* numbered a mere 40,862 (Press Information Department, 2012).

The circulation figures for the English dailies in the two countries show a wide gap in circulation numbers. While *The Australian* enjoys an average circulation in excess 133,000 during the weekdays, *The Daily Star* barely exceeds 40,000. However, a few factors need to be considered when comparing these figures, for example population size, literacy rates, and the official languages of these countries. Australia has a population of 23 million as against over 156 million in Bangladesh (ABS 2014; BBS 2014). However, in both cases, population size should be measured against factors such as the overall high rate of literacy in Australia (where English is the official language) and the low literacy rate in Bangladesh (where Bangla is the official language). This will help to explain the wide gap in circulation. Nevertheless, the small circulation figure for *The Daily Star* does not fully reflect its importance and influence as a national newspaper in Bangladesh.

3.7.5 Why River Systems and Climate Change?

In this study, two environmental issues—river systems and climate change—have been selected for their perceived significance in Australia and Bangladesh during the study period (2008/2009). As suggested in Chapters 1 and 2, rivers have long been acknowledged as the pulse of human civilisation. The year 2008 was particularly significant for river ecology in both Australia and Bangladesh; the latter, in particular, experienced extraordinary flooding due to heavy rainfall in its up-stream area within a short period of time. Excessive precipitation caused its rivers to overflow and inundate one third of the country, leaving millions of people homeless. This flood attracted immense attention in the country's news media, including the two newspapers selected for this study. A further issue related to rivers in Bangladesh—severe pollution of water—also featured prominently in the news coverage during the period.

In 2009, the media particularly focused on the issue of climate change. The UN Climate Change Summit convened in Copenhagen was expected to effectively address the biggest ‘diabolical policy problems’ of contemporary times. The summit’s aim was to bring together both the developed and developing nations to mitigate the level of emissions and set reduction guidelines across the world. Climate change, which had emerged as an important global policy issue across various regions, was closely connected to complex questions of politics, economics and equity. For these reasons, it drew considerable attention from the media across the spectrum. By focusing on climate change at a macro-level, and river systems at a micro-level, this comparative study seeks to understand how journalists’ reportage in the newspapers under scrutiny defines and legitimises these two environmental issues in the local and global political, scientific and policy contexts.

3.7.6 Significance of the Monitoring Period

My study period was politically significant because at the time, two new administrations came to power in both countries. In Australia, the Rudd Labor Government was elected to power in 2007 after 11 years of John Howard’s conservative Coalition regime. In Bangladesh, a temporary bureaucratic caretaker administration was replaced by Sheikh Hasina’s Awami League Government following a general election in 2008. Initially, both new governments showed genuine interest in the age-old problems related to river systems in their respective countries as well as in climate change. The two-year window was considered sufficiently wide to capture different important aspects of the news coverage of river systems and climate change, e.g., the presence or absence of different sources and their journalistic representations. Content analysis in this study was conducted in two stages: an initial pilot study and an extensive examination of content. The two stages are described below.

3.8.1 Pilot Study

Before conducting a detailed examination of newspaper content, I conducted a ‘try-out’ (Hansen et al., 1998, p. 118) of the coding schedule on a smaller sample to establish which variables worked most efficiently for the purposes of the study. In particular, I sought to identify any inadequacies in the initial coding schedule. For these reasons, I conducted a pilot study of news items pertinent to river issues during the first two weeks of June, 2009, in *The Australian* and *The Daily Star*. This pilot study was useful in two ways: first, it helped me to develop the preliminary questions that would guide the project; and second, it contributed to refining several variables (e.g., principal source; verification or crosscheck) in the final coding schedule (see Appendix 2).

In this pilot study, particular focus was on a number of variables including the types of sources, item topics, and attribution of responsibility for environmental problems. The search terms ‘river’ and ‘environment’ were tested in the Newsbank database, and produced 19 items in *The Australian* for the pilot period. Because newspaper content in Bangladesh is usually unavailable through this or other widely-used databases, the website archive of *The Daily Star* was searched. It yielded 83 items on river issues over the two weeks period. In both cases, irrelevant items were excluded.

This preliminary investigation considered 21 different potential categories of newspaper content including seven related to sources (e.g., principal source, political, official, expert, activist, business, and other sources). Other important variables were ‘item topic’, ‘item orientation’, ‘genre of introduction’, ‘attribution of responsibility’, and ‘verification’ of source statements (see Appendix 1). While these variables proved helpful in defining the environmental issues related to river systems, the distinction of values within these variables also produced meaningful categories for observation and quantification (Bell, 1994, pp.13-16) to describe in detail the newspapers’ environmental coverage. The quantitative measurement of the variables was helpful in framing a conceptual guideline that could explain the selection

and representation of different sources from different social institutions. All coding of the variables and values was done manually by the author through a close reading of each article.

Careful consideration was given to the issue of reliability of data in this pilot study. The degree of consistency in the coding procedure of different variables and values can be tested “by assessing the correlation between judgements of the same sample of relevant items made by different coders (‘inter-coder reliability’) or by one coder on different occasions” (‘intra-coder reliability’) (Bell, 1994, p. 21; Hansen et al. 1998). As I was the only coder in this study, I conducted an intra-coder reliability test in which I repeated the coding of 20 items (10 each from both newspapers) three months (Week B) after my original coding (Week A) without any consultation or reference to my previous coding. This allowed me to see the correlation between these two sets of data and test the reliability of the coding, which was 95% (or 19/20 examples).

3.8.2 Pilot Study Outcomes

The pilot study found that the major environmental issues surrounding rivers were water pollution in Bangladesh and the effects of climate change on Australia’s river systems. This finding is quite consistent with the IPCC third assessment report in which Zbingiew & Mata (2007) claim that fresh water systems across the world are at risk of being affected due to an ‘observed and projected’ rise of temperature and sea level as well as varied precipitation rates. However, according to these authors, the extent of the effect would vary from region to region. While fresh water resources in semi-arid Australia are particularly vulnerable to climate change, the glacier-fed river basins such as the Ganges delta in Bangladesh experience “higher water temperatures, increased precipitation intensity, and longer periods of low flows” which are responsible for many forms of fresh water pollution (Zbingiew & Mata, 2007, p. 175). These are exactly the issues which the newspapers selected as worthy news topics when they focused their reporting on rivers.

The pilot study further found that the disposition of sources in river news and attribution of responsibility for environmental problems were quite divergent in these two countries. While *The Australian* held the federal government responsible, claiming that it was pursuing an inappropriate path and poor policies in its attempts to resolve the various river issues, *The Daily Star* identified businesses and private individuals as mainly responsible for the pollution of river water in Bangladesh. This pilot study proved a sound starting point for selecting the two diverse environmental issues in Australia and Bangladesh as a “basis of inference” (Holsti, 1969, p. 2) for a more comprehensive examination of content. It led to the comparative research design outlined below.

3.9 Comparative Structure of the Empirical Study

Following the pilot study, I conducted extensive data collection on river systems and climate change news in two phases (see Tables 1 & 2). In the first phase, quantitative data were collected while the second phase generated a mix of quantitative and qualitative data, which together enabled this study to offer a comprehensive analysis of the issues, and answers to questions. Altogether, the 3,581 news articles on river systems and climate change that appeared in the four newspapers were collected and examined during the course of the study period (2008 and 2009).

In the first phase, news articles on river systems published during January-December 2008 were examined. Ten variables were identified to generate the basic quantitative data required to obtain adequate details of the nature of the news coverage. The variables included: newspaper title, item date, genre of the intro/lead, headline, word count, prominence, author, item type, topic and orientation. Appropriate values were assigned to each variable in order to tease out patterns of emphasis or prevalence across its range. The findings in relation to these variables are described in detail in subsequent chapters (4, 5 and 6). The values of the selected variables, which helped to generate specific questions for the study, are listed below:

1. Item Author

Author of the article origin designated in the content.

Values:

- 1 = newspaper's own reporter (name appears in the by-line)
- 2 = newspaper's own reporter (anonymous Staff Correspondent)
- 3 = expert opinion pieces
- 4 = anonymous editorial writers
- 5 = others, such as press release
- 6 = news agency

2. Item Type

Article type identified by the researcher as the type of content of the selected article.

Values:

- 1 = news
- 2 = feature
- 3 = editorial
- 4 = commentary
- 5 = other (press release etc.)

3. Article Topic

The topic of an article is the subject matter that prominently features in the coverage.

Values:

- 1 = politics about river issues and climate change (i.e., political statements/opinions, declaration of relevant political decisions/action)
- 2 = impact of changing climate on river systems and the environment
- 3 = economic consequences (i.e., impact of economic activities on river systems or climate change and vice versa)
- 4 = doubt surrounding the impact of climate change
- 5 = others (incidental mention of river systems or climate change)

This phase of quantitative data collection also included an examination of articles on climate change, published between July and December 2009 to incorporate the patterns of news coverage in the lead-up to the Copenhagen Climate Conference in December of that year. This was expected to reveal the contestations between different actors in news content on this very important global issue. Overall, this first phase of data collection identified the differences between news coverage of river systems as a local concern, and climate change as a global concern. The preliminary findings of this first phase of the examination indicated that in Australia, news coverage focused on the Murray-Darling river system, while in Bangladesh, focus was on the Ganges-Brahmaputra river system. Based on these findings, the second phase of data collection focused on further in-depth examination of particular variables, e.g., the presence of different types of sources and their representations in the news content. Following the first stage findings, the focal point of data collection shifted to the Murray-Darling and Ganges-Brahmaputra river systems during June-November 2009, and climate change and Copenhagen during July-December of the same year. In the second phase of examination, the categories were distinguished as the variables “principle sources”, “attribution of responsibility” and “verification of source statements” (see full list in Appendix 1). Below are detailed definitions of values appertaining to the above three variables, which became objects of important focus in the discussion centered on the study’s findings.

4. Principal Sources

Principal sources are individual news sources (e.g. politicians, bureaucrats, experts or citizens) who provide important information/statements in support of or against the main theme of a published article. Values:

1 = Political Sources

Political sources include individual politicians who make assertion/s in support of or against the main theme of the article.

2 = Business Sources

The term ‘business sources’ allies to individuals who have experienced about some aspects of the economic issues, and made statement/s supporting or opposing the main theme of the article.

3 = Bureaucratic Sources

Bureaucratic source include official/s (e.g., bureaucrats) from different government departments or other organisations who make statement/s in support of or against the main theme of the article.

4 = Expert/Scientific Sources

Expert sources include individual experts (academics, scientists) on river, water or climate issues, who make statement/s supporting or opposing the main theme of the article.

5 = Activist Sources

Activist source are individual activists (e.g., non-government organisations working for climate change or aboriginal activists attempting to protect their land rights) who make statement/s supporting or opposing the main theme of the article.

6 = Citizen Sources

Citizen or lay sources include individuals who have experienced or witnessed some aspects of the issues pertaining to the item and make statement/s supporting or opposing the main theme of the article.

7 = Other Sources

Other sources include individuals who make statements supporting or opposing the main theme of the article, but do not fall into any of the above categories (e.g., anonymous sources).

5. Attribution of Responsibility

The term ‘responsibility’ in an article signals the attribution of responsibility to a person, organisation or reason who/which may be accountable for the particular condition of the river/s.

Values:

1 = national governments are responsible for river/climate change issues

2 = other states/countries are responsible for river/climate change issues

3 = national politicians are responsible for river/climate change issues

4 = global climate change is responsible for river/climate change issues

5 = economic exploitation is responsible for river/climate change issue

6 = others are identified either as responsible or not clearly identified

6. Verification of Statements

Verification results when the journalist/author of an article has checked the veracity of the different source statement/s with other sources or logical argumentations. Whether an entire article is adequately verified or not is determined by the number of statement/s verified in this manner.

Values:

1 = few statements about river system/climate change issues are checked

2 = no statements about river system/climate change issues are checked

This phase of examination revealed that the Australian newspapers were consistent in focusing on the effects of climate change on the Murray-Darling basin. But, in contrast, Bangladeshi news coverage was divided: *The Daily Star* emphasised water pollution as an important river-related issue, while the *Prothom Alo* highlighted the flood situation as the main river news during the period. And, because both of these issues were important news topics, I found it difficult to decide upon which issue to include in my content analysis. The outcome of the pilot study was helpful in this regard as it indicated water pollution as a central focus during the two-week pilot examination period. Based on this outcome, water pollution was selected as the case for river systems news coverage in Bangladesh. The above lists of variables were not only considered crucial to any understanding of the journalistic representations of river systems and climate change, but were directly related to the various questions posed in this study.

3.10 Data Collection

In terms of the actual collection of news content, both the database and manual searches were conducted in a similar fashion to the pilot stage. For the content of the two Australian newspapers, various search terms such as ‘river’ and ‘climate change’ were used in the Newsbank database during the entire 2008 search period, and ‘Murray-Darling’, ‘climate change’ and ‘Copenhagen’ were used in various combinations during the 2009 search periods. Regarding the Bangladesh news content, the archives of the respective newspaper websites were manually searched using different search terms. These included ‘river’ for the 2008 period, and ‘Ganges-Brahmaputra,’ ‘river system’, ‘pollution’, ‘climate change’ and ‘Copenhagen’ for different periods in 2009. Since the *Prothom Alo* archive did not contain news items from August to November 2008, a competent research assistant was appointed in Bangladesh to collect hard copies of the newspaper from local libraries and to digitise the relevant news articles for the purposes of this study. I deemed this necessary as it was physically impossible for me to collect this material. The selected items were meticulously checked to ensure consistency; and, steps were taken in consultation with the research assistant to meet the criteria for data collection adopted in the study generally.

Content analysis steps in brief:

Study Phase	Duration	News Topic	Newspapers	Aim
Stage 1 Extensive Study	Jan-Dec 2008	River System	<i>The Australian</i> <i>The Daily Star</i> <i>The Sydney Morning Herald</i> <i>The Prothom Alo</i>	To produce the main body of quantitative data
Stage 1 Extensive Study	July-December 2009	Climate Change	<i>The Australian</i> <i>The Daily Star</i> <i>The Sydney Morning Herald</i> <i>The Prothom Alo</i>	To produce the main body of quantitative data
Stage 2 Extensive Study Phase 1	June – November 2009	Murray-Darling River System Ganges-Brahmaputra River System	<i>The Australian</i> <i>The Daily Star</i> <i>The Sydney Morning Herald</i> <i>The Prothom Alo</i>	To produce quantitative & qualitative data To identify sources and their representations
Stage 2 Extensive Study Phase 2	July-December 2009	Climate Change & Copenhagen Summit	<i>The Australian</i> <i>The Daily Star</i> <i>The Sydney Morning Herald</i> <i>Prothom Alo</i>	To produce quantitative & qualitative data To identify sources and their representations

As is evident in the above Table, the duration of the data collection of different search issues differed across the two-year period. In 2008, data were collected on river systems for the entire year, whereas in 2009, data were collected on specific river systems, climate change, and the Copenhagen Summit for various periods (June-November and July-December). This warrants some explanation. The original plan was to collect data on climate change for an entire year in accordance with the data collection period on river systems.

However, the plan was changed during the monitoring period when it became clear that climate change was attracting significantly more attention in both countries than river systems. Thus, the number of relevant articles proved significantly larger than those on river systems. This was particularly the case in Australia, probably due to the added significance of the Copenhagen Summit for this country's political debate. I became concerned that the considerable difference in number of items had the potential to distort a meaningful comparison between the two issues under examination in this study (i.e., river systems and climate change). Determined to reduce this risk, I decided to examine only articles published during the second six months of 2009 instead of the entire year.

3.11 Research Questions

The above-mentioned variables, such as news topics and sources, were adopted to comprehend the patterns of journalistic practice in Australia and Bangladesh. In particular, the presence of various river systems and climate change topics were explored to reveal the degree of news media emphasis on certain issues over others. Furthermore, the observed patterns of selected sources were expected to illuminate the 'framing' adopted by journalists in relation to important environmental issues in the respective countries and their newspapers. To this end, a number of crucial questions were posed:

What are the dominant and less prominent news topics concerning river systems and climate change in Australia and Bangladesh?

What are the similarities and differences between the newspapers' coverage of river system and climate change issues?

What are the types of sources cited in the articles selected for the purpose of this study?

Who are the principal sources in the selected articles of the four newspapers?

Are there any differences between the presence of principal sources between the two countries, two issues and two newspapers?

Who do the journalists hold responsible for the environmental problems?

How are the principal sources positioned or framed through different attributions of responsibility?

How, and to what extent, do the journalists verify various assertions made by their principal sources?

What are the differences and similarities in the ways in which articles are verified, and in the responsibility for environmental problems attributed to in the two countries?

The above questions are designed to inform the thesis, and to generate detailed discussion in the subsequent chapters, in which I present the findings of the study.

3.12 Conclusion

In this chapter, I have provided a description of the two-step content analysis process (pilot and the study) undertaken to examine newspaper coverage of river systems and climate change. I have also delineated the rationale for selecting different variables and time frames to generate data for understanding the journalistic practices in Bangladesh and Australia. Based on this analytical guideline, in the following three chapters I present the findings of the analysis and consider their implications not only for comparative journalism, but for intra-national and international coverage of climate issues during a controversial period in the politics of climate change debate.

Chapter 4

Topics for the Press: Australia and Bangladesh

4 Introduction

In this chapter, I present the findings of my quantitative examination of newspaper coverage of topics in Australia and Bangladesh during 2008 and 2009. As stated in earlier chapters, the broad environmental issues examined here are river systems and climate change; and, the selected newspapers are *The Australian* and *The Sydney Morning Herald*, the *Prothom Alo* and *The Daily Star*.

The chapter begins with a general overview of the findings. First, I highlight the presence and absence of certain topics in the newspapers' coverage including news, features, editorials and opinion pieces, then I analyse the significance of and, relationship between this presence and absence. This study defines the term 'topic' as the subject matter of an article which features most prominently in the article (Chapter 3, p. 73). The identification of topics is an important primary step towards understanding any newspapers' coverage as it illuminates "what news makers construe to be most important information about a news event" (van Dijk, 1991, p. 71).

The examination of topics not only identifies dominant patterns in the newspapers' coverage but also discusses the similarities and differences in the reporting of issues in the two countries. Accordingly, this chapter is divided into two sections: (1) newspapers' coverage in Australia (n= 2,397); (2) newspapers' coverage in Bangladesh (n= 1,076).

The focus of this chapter is upon analysis of the topics, which constitute important aspects of the newspapers' coverage (Tuchman, 1978; Bell, 1991, van Dijk, 1991). Among these

aspects is articles' orientations (i.e., positive and negative orientations) towards the two environmental issues under scrutiny. In order to understand these positions, this chapter scrutinises "what is known", i.e., reviews topics selected from the range of environmental issues related to river systems and climate change. Another important aspect, "how it is known" (Tuchman 1978; pp. 82-83), that is, how sources are included, excluded, and contextualised, will be addressed in Chapters 5 & 6 by examining the use of different sources.

4.1 The Issues: Australian Newspapers

The two Australian newspapers' coverage of river systems has been categorised under the following four different topics: 'politics and river systems'; 'the impact of climate change on river systems'; 'economic consequences of changing river systems'; and 'doubt about climatic impact on river systems'. Examination of the content (see Appendix 3) categorised under these four headings reveals "what information is most important in the text, but also what is presented as most important "in the world"" (van Dijk, 1991, p. 74).

The predominant emphasis of the news coverage in Australia was on the politics of rivers systems, and the impact of climate change on the country's river systems. However, the two newspapers placed a slightly different emphasis on interest in—and the significance they attached to—the various topics. The main emphasis of *The Australian* was on 'politics and river systems' (57 articles) while *The Sydney Morning Herald* published only 18 articles on this topic. The latter paid greater attention instead to 'the impact of climate change on river systems' (21 articles) (see Table 4.1).

Table 4.1 River systems: Topics in Australian newspapers

Newspaper Variable	<i>The Australian</i>	<i>The Sydney Morning Herald</i>	Total
Politics % (n)	57 (42.85 %)	18 (31.03 %)	75 (39.27 %)
Impact % (n)	42 (31.57 %)	21 (36.20 %)	63 (32.98 %)
Economic % (n)	22 (16.54 %)	17 (29.31 %)	39 (20.42 %)
Doubt % (n)	12 (9.02 %)	2 (3.44 %)	14 (7.33 %)
Total	133	58	191

4.1.1 Politics of River Systems

After careful analysis of the coverage, with particular emphasis on headlines and the lead paragraph of the articles, ‘politics and river systems’ was divided into three sub-topics: water buy-back for the Murray-Darling basin; water extraction; and, the Garnaut Report. This division shed light on the representation of policy debate surrounding river systems.

Water Buyback

Articles on river issues and climate change (n=13) highlighted the (then) Rudd Labor Government’s efforts to save the Murray-Darling River Basin. Pursuant to this initiative, an “historic deal” was signed between the Commonwealth and the State governments aimed at addressing the conflict over water sharing that persisted between the different states. Careful analysis of headlines and lead paragraphs has shown that one of the important aspects of the

above deal was the ‘water buyback’ scheme, which aimed to restore the ecological health of the Murray- Darling River (see Appendix 4a).

The Australian adopted a negative stance vis-à-vis the government’s policy of the \$10 billion Murray-Darling rescue package, which initially sought to save 35 billion litres of water through the water buyback scheme. Seven news articles reflecting this negative stance appeared in *The Australian*, relaying irrigators’ and farming communities’ criticism of the government’s strategy. These articles also discussed the difficulties that irrigators faced due to prolonged drought. The coverage in *The Sydney Morning Herald* also painted a grim picture of the government’s rescue package for the Murray-Darling River systems. However, the four articles published in this newspaper pointed the finger at irrigators, identifying them responsible for the ill health of the rivers. The following section explores how the two newspapers presented the complexities of the river systems, despite the Murray-Darling deal.

Water Extraction

News coverage in both outlets emphasised the stressed ground water system due to over-extraction. Ground water sources were linked to aquifers, over-extraction from which had led to negative impacts on the health of adjacent river systems, a situation exacerbated by continuous drought and the unavailability of adequate surface water (Wahlquist, 2008).

The articles in *The Sydney Morning Herald* adopted a highly negative approach to the over-extraction of ground water. This was in the context of prolonged drought in the Basin area, during which people drew upon ground water and river-linked aquifers given that the available surface water was inadequate (see Appendix 4b). The newspaper drew upon expert sources to support its strongly critical stance regarding government initiatives such as the water sharing deal and the procurement of water. Within a year of the ‘historic’ deal, *The Australian* placed heavy emphasis on the ‘uncertainty’ of its success, a strategy reflected in its reporting of disagreements between the federal and state governments as well as among

the states, disagreements that were ultimately slowing down the ‘water buyback’ process. However, the articles in *The Australian* did not always adopt a negative stance towards the government’s position. The case in point here was both newspapers’ special interest in the proposed purchase of a giant cotton station in Queensland—Cubbie Station—which had a water storage capacity of 53,800 mega litres. The Federal Government’s proposal to buy it to restore the hydrological health of the Murray-Darling basin engendered strong debate about whether it would be appropriate for Canberra to spend taxpayers’ money on purchasing such a large-scale agriculture business. Unlike their response to the ‘water buyback’ plan, articles in *The Australian* appeared to favour Federal procurement of Cubbie. But *The Sydney Morning Herald*, which viewed the cotton station as an already existing environmental risk for Australia, argued that government purchase of it would not address the broader problems associated with drought, climate change and water allocation.

In an attempt to address the issues surrounding micro-level river systems from a broader perspective, the Rudd Government established a commission led by Professor Ross Garnaut (Climate Change Review) to report on the impact of climate change on the Australian economy. In the next section I discuss this commission, which attracted significant media attention during my study period (in total 12 articles).

Garnaut Report

Publication of the Garnaut Report was at the centre of attention for both newspapers due to its dire prediction about the future prospects of climatic conditions in Australia. The report placed particularly clear emphasis on the impact of climate change on the Murray-Darling basin. News reports, together with opinion pieces in the above newspapers, highlighted Professor Garnaut’s recommendation of a ten per cent reduction in carbon emissions by 2020. This was to prove one of the major grounds upon which the Rudd Government proposed its Emissions Trading Scheme (ETS) in Australia, by extension justifying its emphasis on climate action. Both newspapers carried critical items about the different claims made in the

Garnaut Report that Australia faced a bleak climatic future. The articles in *The Australian* expressed a guarded albeit negative view of the Report, particularly its suggestion concerning the introduction of an ETS. Contributors argued that the ETS might lead to increased cost of living, have an adverse effect on Australian industries, and ultimately result in job-cuts.

Articles in *The Sydney Morning Herald* also questioned the range of evidence used in the Garnaut Report, especially the precise nature of the predictions which envisaged, for example: “1,276 Queenslanders would die” due to temperature-induced illness every year (see Appendix 4c). However, this is not to suggest that articles in this newspaper opposed the Report. Rather, they tended to reject the above-mentioned potential consequences of climate change, which was being used to justify a ten per cent emission reduction. It published a number of opinion pieces written by economists and scientists in which the authors strongly argued in favour of the market mechanism and supported Professor Garnaut’s policy of “polluters pay.”

Overall, *The Australian* adopted a negative stance. It opposed the Garnaut Report on the basis of its recommendation for an emissions tax on polluting industries. Conversely, while *The Sydney Morning Herald* was broadly supportive of the ETS, it was critical of the Report due to its underlying prognostications about Australia’s future ecological prospects. While the two newspapers described the Murray-Darling treaty as a new era of cooperation between the State and Federal Governments, their reporting of the water management topic (i.e., water buyback) and the Garnaut Report were clearly dissimilar. The articles in *The Sydney Morning Herald* highlighted the heavy use of water by the irrigators, thus attributing the responsibility for the ailing basin to the irrigators rather than to the government. *The Australian*, on the other hand, was highly negative regarding the government’s water buyback plan, terming it “too cheap”. It also underscored how the farming communities—including the irrigators—were heavily impacted by inadequate water in the river systems, a matter I discuss in further detail in the following section on economic consequences.

4.1.2 ‘Economic’ Consequences

Articles related to different aspects of industries connected to the river systems were categorised under this topic. Analysis of headlines and lead paragraphs revealed that the newspapers evinced a predominantly negative stance towards climate change for different reasons. Articles in *The Sydney Morning Herald* demonstrated how industry activities had impacted on the river systems, while those in *The Australian* showed how other factors, such as climate change and the drying-up of the rivers, were affecting the farming communities and associated industries (e.g., the wine producing industry).

Coverage of the economic topic revealed a sharp polarisation between the two newspapers. Articles in *The Sydney Morning Herald* (n=17) held the big industries, e.g., coal mining, responsible for polluting the environment. In contrast, articles in *The Australian* (n=22) highlighted the challenges facing the farming-related industries, e.g., the wine producing industry, attributable to the near collapse of the Murray-Darling Basin, which was once a major area of grape production in Australia (Alexander & Heaney, 2003). Both newspapers emphasised the lack of availability of water in the basin; but, the reasons for this lack of water were interpreted in two different ways. Articles in *The Sydney Morning Herald* attributed it to climate change, while those in *The Australian* claimed it was an outcome of “seasonal variation”. The wine industry seemed not to support either position: it was more concerned with the on-going impact on the industry. In the words of the Executive Director of Wine Grape Growers of Australia, Mark McKenzie:

It doesn’t matter whether you think the current pattern is seasonal variation or whether it is the leading edge of climate change, the longer-term effect is, we are going to have lot less (water) to work with (**Murray winegrowers feel the squeeze as water supply dwindles**, *The Australian*, 31 March 2008).

Throughout the study period, *The Sydney Morning Herald* also focused on how commercial over-use of water, together with government policies on coal mining, was impeding the river's natural flows (see Appendix 4d). From this discussion, it may be argued that the different positions espoused by the two newspapers turned coverage into a binary debate: economic activity harming the environment versus environmental issues damaging the economy (Shabecoff, 2004).

4.1.3 River Systems: the Link to Climate Change

In the previous section, I outlined the effect of decreasing flows of water in the basin. In this section, I explore the reasons behind this lack of availability of water through analysis of the topic 'impact' which includes the various effects of climate change on river systems. As the second most significant topic, it accounted for 63 articles and attracted the attention of both newspapers. The two newspapers' extensive coverage of various related scientific studies clearly illustrated the negative impact of climate change by stressing the reasons underpinning the dwindling contributions from various rivers to the Murray-Darling system. The causes included prolonged drought, decreasing rainfall, "interception of waters from farm dams", plantations, and over-extraction of groundwater.

Articles in *The Sydney Morning Herald* argued that climate change and its impact on the river systems were challenging modern life in the bush, forcing families to leave their rural communities due to acute water shortage caused by prolonged drought (see Appendix 4e). In Subsequent publications, the newspaper emphasised the rising heat and bleak weather forecasts. The authors of the articles asked the government to adopt immediate preventive measures to address climate change and reduce its impact on the ailing river systems in Australia. In contrast, coverage in *The Australian*, which published twice as many articles (n=42) as *The Sydney Morning Herald*, demonstrated a different position regarding the effects of climate change on the country's river systems. *The Australian's* articles considered

the impact of climate change mostly in regard to the economic consequences for Australia's rural economy and primary industries, e.g., wineries and farming (see Appendix 4f).

The Sydney Morning Herald articles characterised the issue in a more oblique way.

Discussion centered on the incremental water shortage and reinforced the assumption that climate contributed to the degradation of river health. Articles in *The Australian* focused instead on the uncertainty expressed by climate science. While not exactly rejecting climate science, opinion pieces showed a complete distrust in the forecast for the Murray-Darling basin, raising questions about the relationship between climate change and its impact on the river system. This questioning brought the broader issue of doubt about anthropogenic climate change to the fore, an issue I discuss in the following section.

4.1.4 Doubt: Climate Change vs. 'Seasonal Variation'

The topic of 'doubt' is characterised by reservations regarding climatic impact on the country's river systems. Articles expressing 'doubt' were predominantly found in *The Australian* (14 articles including 12 opinion pieces published during the study period). *The Sydney Morning Herald* published two news items describing the activities of politicians and religious leaders who rejected the premise of anthropogenic climate change, for example, the then opposition Liberal Party leader Dr Brendan Nelson and Roman Catholic religious leader Cardinal George Pell. The opinion pieces in *The Australian* mainly argued that drought and high temperatures were an integral part of the changing weather pattern in Australia: they were not necessarily caused by human activity. These opinion columns used both in-house and guest columnists to describe the river systems and climate change-related issues. At times, the columnists rendered the presentation credible by incorporating experts' views in which they selectively focused on certain aspects over others. For example, in one of the columns, Dr Tim Flannery's views were summarised to explain the impasse between the government and the opposition on the question of climate change:

Scientific experts agree on one thing: Kevin Rudd and Brendan Nelson could both be right on the part climate change is playing in the current Murray-Darling Basin crisis. Or, they could be both wrong (**Cause of Murray crisis a dry argument for all**, *The Australian*, 4 September 2008).

The above excerpt shows how the coverage in *The Australian* attempted to weaken the basin crisis by selecting the evidence offered by a highly credible scientific personality (Dr Flannery) to support their negative position on climate change. However, it failed to take into consideration the very nature of scientific investigation, i.e., that it cannot predict issues in absolute terms and with absolute certainty (Nelkin, 2005, Zehr, 2000). When analysing the climate pattern in Australia, another editorial piece in this newspaper even referred to climate change as an “inexact science” (**Managing drought**, *The Australian*, 4 September 2008). In this piece, the newspaper argued that the dire condition of the Murray-Darling was rooted in the existing water-intensive farming practice which was not conducive to an arid climate with a high evaporation rate and little rainfall. Declining rainfall was also the subject of a report by economist Nicholas Stern titled *Economics of Climate Change*. Sponsored by the British Government, this report was subsequently challenged by Dr Jennifer Marohasy, an expert from the Institute of Public Affairs in Australia, an ultra conservative activist group.

Stern got it wrong, perhaps because he was confusing output from computer models with real-world data. Rainfall data for the Murray-Darling Basin is also available from the Bureau of Meteorology. The overall trend is one of increasing rainfall since 1900 (**Case of warm and fuzzy**, *The Australian*, 23 August 2008).

This was a case of presenting evidence of “increasing rainfall” to question the specific premise of climate science (i.e., the world is warming) without explaining the fact that such rainfall might be associated with short-term weather patterns rather than with longer-term climate change (Dessler & Parson, 2009). Thus, in effect the commentary argued that it was not climate change but rather two contrasting phenomena—decreasing rainfall and groundwater extraction—that were impacting heavily on the Basin.

4.1.5 Summation: River Systems

The above analysis shows how the process of identification and presentation of certain facts over others allowed these two newspapers to attribute contrasting meaning (Tuchman, 1978) to the reality of river systems and climate change. The coverage dominated by the political topic demonstrated that the government's water buyback, as a strong policy to mitigate concern about the Murray-Darling Basin, received support and criticism from both newspapers through their usual journalistic procedures. The articles in *The Australian* criticised the government for its inefficient policy regarding the Murray-Darling issue. *The Sydney Morning Herald* articles, on the other hand, argued that the two most crucial factors were over-extraction of water by the irrigators, and general overuse of water by the farming communities. These articles also favoured a market solution to the river issue in the form of the proposed "polluters pay" policy. Conversely, articles in *The Australian* opposed the "polluters pay" policy, labelling the scheme a "new tax" without any implications for "our climate".

The significance of river systems in relation to climate change was, that although articles in *The Australian* were not supportive of an ETS, they did raise concern about the economic impact of climate change on wineries and the farming sector. While these articles agreed with the certain reality of climate change, they were not convinced that the proposed emissions reduction tax could satisfactorily address the issue. In contesting the proposed policy, articles in *The Australian* went to extra lengths to argue that the drying up of the Murray-Darling basin was a "seasonal variation" rather than a phenomenon reflecting climate change. On the other hand, *The Sydney Morning Herald* reported it as a crisis, its aim being to provoke a sense of urgency for speedy action at both the political and community levels.

4.2 Climate Change

Climate change provides an opportunity to explore the contrasts and parallels as well as the intersection between the topics of climate change and river systems. To this end, I analysed newspaper articles containing various topics concerning climate change during the period July to December 2009. The topics included ‘climate change politics’, the ‘impact of climate change’ and the ‘economic consequences of climate change’ (see Table 2).

Although the above mentioned three categories have been briefly discussed, following close inspection of ‘doubt’-related items, I decided not to highlight this issue separately for two reasons. First, the doubt-related articles centering on climate change were similar to a degree to those pertaining to rivers systems in that they originated from interpretation of similar specialised institutional sources (e.g., CSIRO), a fact which I have already discussed in the previous section. Second, the issue of doubt criss-crossed three other major categories: climate change politics, the impact of climate change, and the economic consequences of climate change. So, in order to obtain a broader perspective of ‘doubt’ in newspapers, the following sections address the underpinning of doubt throughout the coverage. The discussion here commences with ‘climate change politics’ which accounted for almost half of the climate change related coverage.

4.2.1 Climate Change Politics

As already suggested, ‘climate change politics’ was a major topic (n=1,037) in the coverage of climate change. This topic related to political statements, opinions, political decisions, and negotiations about climate change. My analysis of headlines and lead paragraphs of the articles showed that the coverage was dominated by two streams of events: national politics (n= 640) surrounding the prospect of the introduction of an ETS in Australia in the lead-up to the Copenhagen Summit 2009, and international politics (n=201) involving both industrialised and developing nations about the possibility of a deal to replace the Kyoto

protocol. The coverage of ‘international politics’ was further divided into two sub-topics: global negotiation vis-à-vis emission cuts, and climate aid for poorer nations.

Table 4.2 Coverage of Climate Change in two newspapers 2009

Newspaper Variable	<i>The Australian</i>	<i>The Sydney Morning Herald</i>	Total
Politics % (n)	656 (46.08 %)	401 (48.62 %)	1037 (47 %)
Impact % (n)	41 (2.92%)	52 (6.48%)	93 (4.21%)
Economic % (n)	120 (8.54%)	49 (6.10 %)	169 (7.66%)
Doubt % (n)	40 (2.85 %)	10 (1.24 %)	50 (2.27 %)
Others % (n)	547 (38.96 %)	290 (36.15 %)	837 (37.94 %)
Total	1404	802	2206

Articles in both newspapers emphasised ‘uncertainty’ regarding the success of the Copenhagen Climate Summit, that was manifested in the coverage of the other pre-conferences, e.g., the UN conference, and the Group of Eight (G8) meeting. Articles in *The Australian* highlighted the lack of a breakthrough in the G8 summit due to disagreement over the sharing of the responsibility to reduce greenhouse gases between the rich and poor countries (see Appendix 4g). Analysis of the coverage of this newspaper showed both negative (n= 316) and positive (n=183) orientations towards global climate change issues. While articles in *The Australian* portrayed some of the initiatives of the Australian

Government positively, most were negative about the process of international negotiation relating to the signing of a climate deal. When alluding to the international climate change forum, articles in *The Australian* evinced a preference to stress the incapacity of the leaders to reach a breakthrough, highlighting how they focused on “recycled ideas” such as “Carbon Capture” to claim success for the summit.

Contrary to the pattern of articles in *The Australian*, articles in *The Sydney Morning Herald* espoused the reasons for the stalled negotiations. Focus was not only on the United States, but also on China and India—two other crucial players in the climate negotiations (see Appendix 4h). *The Sydney Morning Herald*, which favoured giving prominence to international talks on climate change (n=61), published a high proportion of articles (n=43) showing a positive orientation to international climate change issues. Its coverage was quite divergent and included perspectives not only of Western industrialised countries, but also of other participating developing nations as well. Compared to *The Australian*, the visibility of the UN Climate Summit was low (n=3) in the *Sydney Morning Herald*. However, the latter’s coverage expressed a cautious anticipation about the efficacy of this summit by emphasising the world leaders’ “stronger rhetoric”. There was no suggestion of commitment to any financial aid to obtain “real change” for cutting emissions across the world.

Somewhat similar to its river systems coverage, editorials in *The Australian* expressed doubt about the political negotiations, arguing that “science is yet to be convinced” (see Appendix 4i). Unlike *The Australian*, the *Sydney Morning Herald* fully accepted the scientific position on climate change; but its concerns lay in the world leaders’ potential inability to address this paradigmatic issue (see Appendix 4i). My analysis of the coverage of discussions between the developed and developing countries showed that “climate aid” to the developing countries was one of the significant concerns in the negotiation process. Altogether, this accounted for 52 articles in the two publications under the sub-topic of ‘international climate change’: including 32 articles in *The Australian* and 20 in the *Sydney Morning Herald*.

4.2.2 Aid and Climate Change

This section addresses how aid-related issues were played out in the coverage of climate change (van Belle & Potter, 2004 in Boykoff, 2007). Both newspapers maintained a broad focus in their coverage of climate aid, highlighting then Prime Minister Kevin Rudd's in principle support for British Prime Minister Gordon Brown's proposal of aid for the world's poorer nations, aid that would assist these nations to tackle problems related to climate change. My analysis of climate aid-related items shows that overall articles in *The Australian* showed a negative orientation (n= 25 out of 32 articles). Authors alluded to the impossibility of convincing the developing countries to strike a climate deal unless a concrete figure for aid from the rich countries was forthcoming. These articles also raised questions about the justification for referring to climate aid as an "adaptation fund" (see Appendix 4j). The authors of these articles argued to the effect that the developing countries were not convinced about the climate aid promise due to a "poor record of wealthier nations at delivering promised development aid." The articles also stressed Western governments' reluctance to implement penalties for breaking this promise.

It became evident that news media linked climate aid and the emissions reduction target as mutually dependent components of the climate negotiation process. This was further reaffirmed in my detailed analysis of a couple of articles published in *The Sydney Morning Herald*. In reference to the respective reports published by international aid agency Oxfam and the World Bank, *The Sydney Morning Herald* articles outlined the rationales behind the proposed climate aid to the world's poorer nations.

While the Oxfam report focused on the potential plight of the world's poorest countries due to increasing temperatures, the World Bank report termed climate change "a deeply unfair issue" (see Appendix 4j). The latter directly called upon the rich countries, e.g., Australia, which were deemed collectively responsible for two-thirds of greenhouse gas emissions in the atmosphere, to play a bigger role in compensating the developing world for the impacts of

climate change. The sense of deep unfairness between the North and the South explicitly resonated in an editorial titled **Help first, ask questions later** (*The Sydney Morning Herald*, 5 October 2009). While the overall coverage of climate aid in *The Sydney Morning Herald* could be construed as positive vis-à-vis the need for climate aid to developing nations, the newspaper also published an opinion piece which questioned the justification of aid to poor countries. However, this did not amount to opposing the reason for aid; rather, the publication of the opinion piece may be viewed as a journalistic balancing act. Zelizer & Allan (2010, p. 9) explain such acts as “the maintenance of a state of equilibrium between two or more sides, opinion or perspectives” in journalistic production.

Apropos of climate aid to developing nations, the two newspapers displayed different perspectives. *The Sydney Morning Herald* articles proposed the reasons why the developing nations needed financial assistance to tackle the impact of climate change. But, in the process some articles expressed hesitation about how said assistance could be useful in addressing environmental problems. Several articles in *The Australian* expressed clear reservations about climate aid, singling out the bureaucratic tangle about what this aid should be called. This broadsheet continued to reify its implicit ‘doubt’ about the whole issue of climate change albeit not overtly opposing climate aid.

The above perspectives identified the two newspapers’ positions regarding the portrayal of international deliberations over climate change issues. In next section, I delineate how climate change politics at the national level was covered in these newspapers. The discussion, as well as providing a comprehensive picture of the coverage of climate change, also demonstrates that international and national level issues of climate change are interdependent.

4.2.3 ETS as National Political Issue

As suggested earlier, ‘national politics’ (n=836), a sub-topic of ‘climate change politics’, was related to the national political coverage of climate change in Australia. Broadly speaking,

both newspapers' attention was on the issue of the ETS proposed by the then Labor Government.

Throughout the study period, while articles in the *Sydney Morning Herald* were predominantly supportive of and displayed a positive orientation (n=109) towards the proposed ETS, most of the articles in *The Australian* evinced a negative orientation (n=513). Many articles in *The Australian* questioned the efficacy of the ETS in relation to climate change, terming the scheme as equivalent to job losses for the Australian economy (Nisbet, 2010; McKnight, 2010; Bacon, 2011). Articles in *The Australian* stressed their explicit opposition to the proposed ETS and its capacity to address climate change. As well, they questioned the significance of the adoption of an ETS in the global context. This ideological difference in opinion became sharper in both newspapers during the extreme end of the leadership debate within the Liberal Party. The leadership debate, which was clearly connected to the ETS, concluded with Malcolm Turnbull losing his leadership battle with contender Tony Abbott, who withdrew his support for the ETS on the eve of the Liberal leadership challenge. *The Australian's* coverage argued that the leadership was shattered because "of internal healthy scepticism" over the ETS within the Liberal Party, and Turnbull's plummeting popularity in the opinion polls (see Appendix 4k).

Articles in *The Australian* were in fact extremely supportive of the Opposition's leadership change. Most held Turnbull responsible for his own demise as he had failed to pay attention to those who within his party opposed the introduction of an ETS. However, the issue at stake in this leadership coverage was not the portrayal of Malcolm Turnbull, but the way in which articles in *The Australian* used the leadership debate to validate the paper's climate sceptic position. *The Sydney Morning Herald*, in contrast, termed Malcolm Turnbull "Australia's first political martyr to the cause of climate change," a man who had displayed strong political conviction during the internal Liberal Party leadership struggle (**Turnbull to die for honour**, *The Sydney Morning Herald*, 1 December 2009). By portraying the recently deposed opposition leader Malcolm Turnbull as the "first political martyr" for climate change, and the

newly elected leader Tony Abbott as a “political opportunist”, *The Sydney Morning Herald* clearly delineated its position from that of its counterpart.

The discussion in this section has sought to explicate how politics and economics crisscross each other in the debate surrounding climate change policy (ETS). So far, the discussion has shown how newspapers portrayed the interplay between the different political positions pertinent to the issue of climate change policy. The next section sheds light on how climate change is perceived by the business and industry communities.

4.2.4 Economic Issues & Climate Change

This section deals with the ‘economic’ topic (n=189), which demonstrates the different influences of climate change-related issues on business groups; e.g., farming, mining, real estate, steel and aluminium, and the renewable energy sectors. In general, this study observes that the coverage varied significantly between the two newspapers. While on the one hand, the articles in *The Australian* associated business communities’ concerns about job losses with the proposed climate change policy, and displayed a positive orientation towards the cause of industry (n=111 out of 129), on the other, articles in the *Sydney Morning Herald* also raised the issue of job losses albeit to a lesser extent than *The Australian*. The former further questioned the big compensation package for industries under the proposed ETS scheme. Another related aspect that emerged in the coverage by the *Sydney Morning Herald* was the scrutiny of big companies’ engagement with environmental groups as well as the government. Overall, the coverage in this newspaper exhibited a negative orientation (n= 48 out of 60) to industry issues emerging from the proposed climate change policy.

A number of opinion pieces in *The Australian* also expressed some reservations concerning the agreed-upon ETS between the government and the Opposition. These articles portrayed the ETS as an unfair business policy which offered concessions to some sectors, such as electricity, and agriculture, but not to others (e.g., hospitality, tourism) (see Appendix 4I).

While articles in the *Sydney Morning Herald* depicted some industries' concerns regarding the proposed ETS, the newspaper's primary focus was not on how the industries would be impacted by the ETS, but rather on how they were attempting to slow down the process of climate change, both internationally and locally (the ETS). These findings were, in fact, consistent with Guy Pearce's (2007) widely publicised work in which he exposed the influence of industry lobbyists on the devising of government policy.

Throughout the monitoring period, *The Australian*, in its content, consistently demonstrated a negative orientation towards the Rudd Government's climate change policy, both implicitly and explicitly. However, the newspaper was quite receptive to a proposal from a cohort of business leaders about the introduction of nuclear power to tackle carbon emissions. Interestingly, *The Sydney Morning Herald's* coverage also implicitly supported "nuclear power to reduce our carbon footprint". This does not suggest that the newspaper directly endorsed the business community's call; rather, the paper justified its support for nuclear power in response to an "open minded mood among the populace" revealed in a Herald/Nielson poll, according to which, 50 per cent of Australians thought the "Government should consider nuclear power to reduce emissions" (**The Nuclear merry-go-round**, *The Sydney Morning Herald*, 14 October 2009).

The above analysis shows that the newspapers, as expected, demonstrated two different positions in relation to their coverage of industry issues related climate change policy. In particular, *The Sydney Morning Herald* coverage, which challenged the tradition of uncritical coverage of business and industry groups (Davis, 2002), featured a series of critical investigations exposing the relations between industry and the government's climate change policy. These articles argued that industries would emerge as the winners, that is, benefit from the government's compensation package. From this, it may also be inferred that both newspapers were actively seeking to influence the government's climate change policy by adopting two different positions vis-à-vis the proposed ETS.

So far, my analyses of international and local climate change politics, and the influences of climate change on business, reveal the coverage pattern of the political regulation of climate

change and its response from industry. In the next section, focus is upon the imperatives of climate change regulation in Australia.

4.2.5 The Effects of Climate Change

While articles in *The Australian* were quite critical of the Rudd government's action due to its strong commitment to implementing climate change policy to address carbon emissions, those in *The Sydney Morning Herald* argued that the government was not doing enough to save Australia from the devastating effects of climate change.

The topic I have defined as 'impact' included articles (n=93) which demonstrated the effect of climate change on Australia's social and economic environment based on scientific investigation. Analysis of such articles identified a diverse range of issues influencing the environment including rising sea levels' impact on coastal communities, endangered biodiversity, increased acidification in the Great Barrier Reef, and a decrease in the production of food. Broadly speaking, both newspapers placed heavy emphasis on global warming and its impact on some coastal communities in Australia. Altogether, 13 articles including eight in *The Australian* and five in *The Sydney Morning Herald* addressed these matters. All exhibited a negative stance regarding the government's response to climate change, albeit from different positions (see Appendix 4m).

During the six months from July to December 2009, articles in the *Sydney Morning Herald* underscored the views of experts in order to validate evidence of the devastating potential consequences of climate change, placing greater emphasis on the policy actions of the government. While *the Sydney Morning Herald* drew upon scientific knowledge in its articles, *The Australian* questioned the veracity of these scientific claims. In response, it published an array of commentaries, most of which were merely opinionated column pieces with general comments rather than informed discussion on the issues (McKnight 2010; Nash et al., 2009).

It also published material using different scientific reports (compiled by BOM, CSIRO) to question the government's action in tackling climate change.

From the above overview, it may be asserted that the articles in *The Sydney Morning Herald* clearly accepted the scientific findings and consistently presented an alarming picture of the consequences of climate change for Australia. In contrast, *The Australian's* coverage attempted to challenge the predictions of scientific reports by questioning the appropriateness of the government's action, a response consistent with the newspaper's negative orientation towards climate policy which I have alluded to throughout the above discussion. However, caution needs to be exercised when labeling *The Australian* a 'congenital climate change denier'. In effect, this broadsheet was trying to do what critics termed as "maintain the controversy" and "keep the debate alive" (Oreskes & Conway, 2010, p. 241) by portraying the government's action as precariously based on mainstream scientific evidence and not without a "touch of exaggeration"

4.2.6 Summation: Climate Change

The thesis' exploration of various topics concerning climate change has demonstrated that the coverage by *The Australian* was more combative towards different government initiatives regarding climate change than was *The Sydney Morning Herald*. The articles in *The Australian* characterised the climate change issue with a degree of 'uncertainty' in the topics of politics, impact and economy. This uncertainty was manifested in the questioning of the imperatives of global leaders' forums and the introduction of an ETS; in their view, "science is not yet convinced" about climate change. Its non-acceptance was not only confined to climate science issues, but also permeated the national carbon policy (ETS) and the associated Liberal Party leadership debate. In particular, the perspectives of different industry bodies were emphasised and the ETS was equated with job losses.

In contrast, *The Sydney Morning Herald*, which prioritised scientific consensus on climate change, expressed serious concern: (a) regarding the consequences of the potential failure of global leaders' talks; and, (b) regarding the impact of rising temperatures on Australia. Regarding local climate change policy, articles in *The Sydney Morning Herald* characterised both the ETS and the impact of climate change as matters of serious concern which required urgent attention at the policy level. This had been consistently visible in their portrayal of increasing emissions, climate aid, and critical coverage of the proposed compensation package for industry.

Thus, it may be asserted that the print media's coverage of climate change was very much polarised given that *The Australian* consistently expressed an 'unconvinced' position, while *The Sydney Morning Herald* expressed a 'concerned' position, both explicitly and implicitly. However, there was one exceptional case which saw both the newspapers adopt a similar position: the introduction of nuclear energy to reduce fossil fuel dependency in Australia. In its articles about this case, *The Australian* did accept the imperative of a sustainable energy option to tackle climate change, its acceptance manifested in its positive and supportive coverage of nuclear energy as an alternative option for Australia. It should be noted here that in both of the newspapers, the issue of nuclear energy was almost invisible in quantitative terms. However, the mere presence of such articles was significant because my analyses revealed that at least temporarily, the newspapers had moved away from their usual oppositional stances on environmental questions. But, notwithstanding, *The Sydney Morning Herald* continued to maintain a very cautious position regarding nuclear energy, arguing that compared to other energy sources, it was a less emitting option.

From the above discussion, it is evident that *The Australian* systematically maintained its cautious or 'unconvinced' position regarding climate change science and policy throughout its coverage, a finding consistent with previous investigations (Gelbspan, 2005; Monbiot, 2006; Nash et al., 2009; McKnight, 2010, p. 704). *The Sydney Morning Herald*, on the other hand, displayed a strongly critical view of the big industries for obstructing climate change policy—both locally and internationally—by employing various strategies.

Broadly, the newspapers' coverage of river systems was dominated by ecological (n=63) and economic concerns (n=39) while climate change coverage was dominated by climate change policy (n=1037) and economic concerns (n=169). These quantitative findings suggest that river systems issues functioned as significant evidential support for generating momentum towards the formulation of climate change policy. In other words, the debate surrounding the coverage of river systems, which had to date been the purview of the scientific field, shifted to the political field in the coverage of climate change (Neverla, 2008). And it had become more intense.

The coverage of river systems and climate change was frequently divergent despite the broad similarity between the newspapers. Scrutiny of the two issues—micro-level river systems and macro-level climate change—revealed the intersection of two interdependent matters in Australia. *The Sydney Morning Herald* articles portrayed the river systems as victims of the over-exploitation of water by irrigators and farming communities alike, a problem that needed to be addressed by a strong emissions reduction policy and market mechanisms. This type of policy would reduce the exacerbating drying-up effect that was impacting on the Basin. The newspaper supported the Garnaut recommendations regarding the “polluters pay” principle; but, it expressed strong concern about the potential consequences of adopting an ETS to tackle climate change. Similar to climate change, *The Sydney Morning Herald* while accepting the scientific consensus about climate change and the proposed ETS, strongly criticised the compensation package that the government planned to awarded the polluting industries. On the other hand, articles in *The Australian* characterised the farming community and associated industries (e.g., wine producers) as the losers and victims of both the government's inefficient water policy (river systems) and its proposed climate change policy (climate change). And, while accepting the reality of the degrading river systems, it cautiously attributed the reason for the dying rivers to “seasonal variation” rather than to climate change.

I want to stress here that the ways in which *The Australian* and *The Sydney Morning Herald* characterised river systems issues and climate change in relation to farmers and industry are critical to understanding representation of the two inter-dependent issues. Their attributing of the risks posed to the dying river systems to “seasonal variation” and ineffective government policy were the corollary to economic loss in the farming sector. These significant illations made by *The Australian* allowed the journalistic production to exercise its leverage for ‘what is known and what is not’. Within this process, “seasonal variation” as opposed to climate change emerged as an alternative interpretation of the widely accepted scientific conclusions about climate change (Beck, 2009; Oreskes & Conway, 2010). Conversely, *The Sydney Morning Herald*, in its content, identified irrigators and industries as mechanisms slowing the recovery process of river systems and climate change legislation. In its coverage, the newspaper not only accepted the scientific consensus about climate change, but at times ‘dramatised’ or accelerated the issue by highlighting the potential risk of climatic calamities. It can also be deduced that the newspaper’s definition of issues using linguistic identification of the problem was significant; it showed that it was not solely the scientific absolutes, but the inextricably fused relationship between what had been selected as evidence and what had not, that was contested in the coverage of these two newspapers.

The Issues: Bangladeshi Newspapers

4.3 Introduction

This section, in which I address the news coverage of river systems and climate change in two newspapers of Bangladesh during 2008 and 2009, elaborates upon the various topics which emerged from the coverage, e.g., ‘politics’, ‘impact’, and ‘economic’ issues that were related to the two broad issues. The categories of the topics were described elaborately in Chapter 4. Both of the selected newspapers, i.e., *The Daily Star* and the *Prothom Alo*, are national in scope. Similar to the previous section on the Australian coverage, this chapter is divided into two sub-sections: river systems and climate change. It identifies the priority of certain topics over others in the coverage, and explores any possible relationship between these two broad issues in Bangladesh. The overview of the findings contributes to an

understanding of the extent of the differences and similarities that obtained between the two news organisations. The discussion starts with the elaboration of topics related to river systems followed by ‘climate change’.

4.3.1 Portrayals of River Systems

The two newspapers’ coverage of the river systems in Bangladesh during 2008 was marked by a large number of articles discussing floods of huge magnitude and associated matters. These articles, which have been identified as the ‘impact’ (n=166) of river systems, are followed by articles on ‘economic’ exploitation (n=126), ‘politics and river systems’ (n=128), ‘community actions’ (n=71) and ‘others’ (n=21). Following a close reading of these topics, I decided to focus on two topics only as they revealed some crucial aspects of the river systems coverage more clearly than the others: the ‘impact’ and ‘economic’ exploitation of river systems. A limited number of other items appertaining to climate change and river systems are also analysed for the purpose of comparison between the coverage of the two countries. This has enabled an examination of the ways in which the issues of river systems were related to the global issue of climate change. The other two topics—‘politics and river systems’ and ‘community’ actions—were mainly concerned with calls for the protection of river banks from erosion, calls made by civil society organisations and political parties that appeared in articles based on press releases. Such call-related items were quite widespread during the study period and appeared across all topics including ‘impact’ and ‘economic’ exploitation, making it redundant to discuss these articles separately. My analysis is based predominantly on the headline and lead paragraphs of the selected articles.

4.3.2 ‘Impact’ of River Systems

The number of articles related to flood as a natural adversity was much higher in the *Prothom Alo* (n=129) than in *The Daily Star* (n=37), a numerical difference that can be explained by the different characteristics of the two newspapers. The *Prothom Alo*, a Bangla daily, has a wide readership in both the urban and rural areas and publishes special pages of regional news. The English-language *Daily Star* places less emphasis on regional news due to its

English language usage and its city-centered elite readership. There are two main ways in which flooding as a natural disaster, has been manifested in the news coverage: (1) the erosion of different rivers (n= 121) which “involves the wearing away of rock and soil found along the river bed and banks” often due to water pressure caused by heavy rains either locally or upstream in India; (2) issues related to embankments (n= 45) built to prevent flood water, or the construction of roads, railways or canals. While erosion renders millions of people homeless, the embankments protect the communities from the impacts of devastating floods.

The above brief overview of these issues contextualises the diverse concerns surrounding Bangladesh’s river systems, which are dominated by natural disasters in this low-lying riverine land. Most importantly, this overview demonstrates that main ways in which the news media responded to these issues.

Table 4.3 River Systems: Topics in Bangladesh

Newspaper Variable	<i>The Daily Star</i>	<i>Prothom Alo</i>	Total
Politics % (n)	58 (37.2 %)	70 (18.5 %)	128 (24 %)
Impact % (n)	37 (23.7 %)	129 (34.2 %)	166 (31.1 %)
Economic % (n)	28 (17.9 %)	98 (26 %)	126 (23.6 %)
Community Action % (n)	23 (14.7 %)	48 (12.7 %)	71 (18.8 %)
Others % (n)	10 (6.4 %)	32 (8.5 %)	42 (11.1 %)
Total	156	377	533

4.3.3 River Erosion

The coverage of river systems in 2008 was dominated by reports of severe floods and erosion in the major river systems including the Padma, Meghna, Brahmaputra, Teesta and Jamuna, and their tributaries crisscrossing the country. The year 2008 was earmarked as a flood year due to the swollen river water' inundation of vast areas of the low-lying regions. The large amount of coverage in the *Prothom Alo* demonstrated the unprecedented severity of river erosion that left a trail of destruction in the regional communities and rendered thousands of people homeless.

In its disaster-driven coverage, the *Prothom Alo* portrayed the extreme vulnerability of thousands of people in regional areas by associating river erosion with homelessness. This was explicit in the headlines and lead paragraphs of the articles in this newspaper. *The Daily Star* adopted slightly different tones in its news content, particularly in its headlines (see Appendix 4n for some examples). The English language newspaper emphasised the impact of erosion by anticipating a further risk of thousands of people becoming homeless when refereeing to a research report by the Centre for Environment and Geographic Information Services (CEGIS). The Bangla newspaper, which also focused on the imminent danger of erosion, based many of its reports on the regional correspondents' descriptions of the helplessness and suffering of thousands of people struggling to survive in the midst of a natural disaster. The *Prothom Alo*'s elucidation of the miseries of the regional areas in its articles was not confined to descriptions of and predictions regarding this natural disaster: it also dealt with its potential consequences (see Appendix 4n). *The Daily Star*, which also covered the sufferings of the disaster victims albeit to a lesser extent, discussed the issue of river systems from a broad perspective. It not only anticipated the potential risk of further erosion of the rivers across the regions, but also highlighted the country's loss of territory due to river erosion in the regions bordering neighbouring India (**Borders with India, Myanmar: River erosion eats into Bangladesh territory**, *The Daily Star*, 24 February 2008).

One could justify the two newspapers' intensive coverage pattern by noting that to be a victim of a natural disaster was to be expected in Bangladesh; and, the authorities could do little to prevent such disasters or to tackle the consequences. This was a dominant theme in a number of articles related to river erosion and floods in both newspapers. However, in other articles, a counter theme also emerged. Both newspapers, particularly the *Prothom Alo*, gave extensive coverage to possible solutions to the flooding. This was evident in their coverage of embankments and their impact on rural regions, a subject I discuss in the following section.

4.3.4 Embankments

The construction of artificial banks above the water level is one of the crucial ways in which erosion of rivers in low-lying areas is addressed. Analysis of the embankment-related coverage reveals a complex picture. In the *Prothom Alo*, for example, the coverage of embankment issues was not straightforward; rather, it was a mix of positions both in favour of and against the construction and maintenance of embankments. This newspaper featured a range of news and opinion pieces (n=42) which elucidated both sides of the debate. In contrast, the English newspaper only published three items pertinent to the topic.

In its coverage, the *Prothom Alo* articles underscored the fact that while some quarters called for the construction of more embankments, others complained about the damage caused by these structures, such as prolonged water logging. The articles in *The Daily Star* opted not to focus on the specific consequences of rural embankments but took a broad view of the problem. Embankments were considered likely to interfere with the natural flow of water; and, the expert commentators mentioned in the articles were particularly critical of the construction of embankments in neighbouring India and its ruinous impact on lower riparian Bangladesh. The *Prothom Alo* did not highlight opinions but published various protests by non-government organisation activists who demanded the elimination of embankments (see Appendix 4o).

Overall, the coverage of erosion and embankments was dominant in the *Prothom Alo*. In contrast, *The Daily Star*, while reporting minimally from the ground, raised some significant questions by publishing opinion pieces. My analysis of the ‘impact’ of river systems indicated that erosion induced by heavy rain and overflowing rivers, formerly a ‘natural’ disaster, was now an ‘unnatural’ issue with heavy focus on the construction and efficacy of embankments. The newspapers’ shift from natural disaster to ‘unnatural’ adversity can be analysed in two ways. First, erosion-inducing floods were natural disasters that left communities unable to cope and thousands of people homeless. Second, the problems transformed into ‘social’ or ‘beyond nature’ happenings when issues surrounding the embankments came to the fore. The construction, maintenance, and, in fact, the efficacy of these structures are matters related to human action, a conclusion strongly visible in the coverage of the pollution of rivers. I discuss this in detail in the section dealing with ‘economic’ exploitation.

So far, I have discussed river systems in the context of their negative impact or consequences for the environment in the form of both natural and man-made (or *unnatural*) disasters. However, a twist in the coverage by both newspapers revealed positive aspects of the river-related issue. While this positive coverage did not receive significant attention compared to the other issues relating to river systems, its link with the issue of climate change made it a significant topic of attention. In the following section, I discuss this matter in detail.

4.3.5 The Link to Climate Change

As suggested earlier, positive coverage of the river systems was almost invisible; altogether, there were only four articles in the two newspapers. This paucity of coverage gave rise to questions regarding the scientific approach to anthropogenic climate change. This study failed to find any items written by in-house staff journalists that referred to doubt about climate change. However, I found an opinion piece in the *Prothom Alo* and a news agency

report in *The Daily Star*. In these articles, the newspapers staunchly criticised the United Nations Intergovernmental Panel on Climate Change (IPCC) which claimed that due to being “crisscrossed by a network of more than 200 rivers, Bangladesh will lose 17 per cent of its land by 2050 because of rising sea levels due to global warming”. However, articles in the English newspaper (e.g., **Bangladesh gaining land, not losing: scientists**, *The Daily Star*, 17 August 2008) contested this argument reinforcing the opposing assertion about the accretion of land. It published an interview with Dr Maminul Haque Sarker, head of the Center for Environment and Geographic Information Services (CEGIS), a publicly-funded research institution. He was one of the scientists who had been observing the build up of land in the country’s coast region through satellite images that showed the flow of river sedimentations and the emergence of new land. In this interview, Dr Sarker stated:

While rising sea levels and river erosion were both claiming land in Bangladesh, many climate experts failed to take into account new land being formed from the river sediment. Satellite images dating back to 1973 and old maps earlier than that show some 1000 square kilometres of land have risen from the sea.

From this excerpt, it is clear that this Dhaka-based scientist from a government agency challenged the UN scientists’ position about rising sea levels and their effects on Bangladesh. This scientist also reinforced his agency’s position which argued for a broader scale of embankment management in order to prevent river erosion. However, a remarkable back-flip was found in another item on this ‘land gain’ perspective in which the hydro morphologist Dr Sarker apologised for the ‘misinterpretation of his comment’ by the news agencies:

I did say that rising sea levels and river erosion were both speeding up the pace of land accretion, but, I did not say this process would compensate for climate change induced erosion (**Climate Change and Bangladesh: Floundering for the Real Answers**, *The Daily Star*, 5 May 2008).

The editorial decision to publish the above article prominently on the front page showed that *The Daily Star* preferred to present different sides of the debate surrounding climate change. However, the way the main expert source for the article contradicted the pro-climate change policy of the government, and subsequently recanted his position on this contested issue, is a matter of interest here.

On the other hand, the *Prothom Alo* opted not to publish a similar news article: it carried two opinion pieces. One piece was a translation of an article by Johann Harry, a journalist with the UK-based English newspaper *The Independent*, who argued for Bangladesh's climate vulnerability; the other, which was by M. H. Khan, a local columnist argued against climatic catastrophe. Both articles appeared next to each other in the op-ed page of this newspaper. Its treatment of the two opposing articles allowed the newspaper to distance itself from the entire debate and to adopt a seemingly neutral observer position.

However, the mere fact that they published such articles does not mean that the two newspapers should be deemed climate sceptics. In fact, due caution should be exercised before labelling any of Bangladesh's newspapers climate sceptic; because although the coverage critical to climate change was quite prominent, the articles amount to little in the overall depiction of the climate change issue. Moreover, while the articles analysed above, particularly those from the *Prothom Alo*, offered a very balanced perspective by incorporating the position of the IPCC expert, the English daily articles did not question the CEGIS study outcome. However, it did publish a number of opinion pieces that were critical of the theory concerning accretion of land. So, one could argue that while the newspapers are not climate sceptics as such, they want to flag awareness of the global wave of scepticism surrounding anthropogenic climate change. As suggested earlier, the characterisation of the river systems issues was not confined solely to macro-level issues such as disasters and climate change; it also incorporated micro-level issues, e.g., the exploitation of river systems, a subject I elaborate upon in the following section.

4.3.6 Economic Exploitation

Apart from flood-associated issues, the ‘economic’ exploitation of river systems was another significant issue (n= 126) which attracted wide coverage in both newspapers. Some of the more striking aspects of the debate included the indiscriminate dumping of human waste and industry effluent as well as encroachment of the banks of rivers through earth filling, particularly in the Ganges-Brahmaputra region. This river system flows in and around the capital Dhaka as four tributaries: the Buriganga, Shitalakkhya, Turag and the Dhaleshawari. The pollution of rivers is not only prevalent in urban stretches such as Dhaka: it is endemic across the country (Karn & Harda, 2008). Besides pollution and encroachment, the construction of the structures on the riverbanks obstructs the rivers’ natural flow. In numerical terms, it amounted to 23 per cent of the total coverage. During my study period in 2008, both *The Daily Star* (n=28) and the *Prothom Alo* (n= 98) placed similar emphasis on these man-made ‘unnatural’ aspects of the degradation of river systems. The issue of degradation, which appeared more rigorous and consistent in 2009, is discussed in detail in Chapter 6.

The unanimous opinion regarding this issue made the news coverage significantly different from the other two themes relating to river systems. In particular, articles in the *Prothom Alo* focused on the ecological degradation of water bodies, and identified two specific groups as responsible: the authorities responsible for the maintenance of water bodies, and a number of politicians who were previously in power. Throughout the monitoring period, while *The Daily Star* published articles about pollution and encroachment across the country, its focus was predominantly on the Ganges-Brahmaputra river systems. Unlike the previously discussed aspects of embankment, its coverage of river pollution provided more striking exposure of the illegal activities of some who lived adjacent to the Turag, an important river in the Ganges –Brahmaputra system (see Appendix 4p). Focus on issues pertinent to river

systems was further enhanced in the two newspapers with the advent of the national parliamentary elections in late 2008 when the two outlets tried to expose allegedly corrupt politicians who sought to contest local seats. These politicians were directly involved in encroachment activities on the riverbanks surrounding the capital.

Overall, the newspapers illustrated a strong predilection towards protecting the river systems from unscrupulous quarters and implicitly held the authorities responsible for deceptive, ‘dodgy’ businesses. The two newspapers not only displayed a strongly negative stance against the authorities, but argued that economic activities were harming (Shabecoff, 2004, quoted in Wyss, 2008, p. 234) the ecology of the water bodies.

4.3.7 Summation: River System

The *Prothom Alo*’s coverage of river systems was dominated by natural disasters; for example, erosion. This confirms Hansen’s (1991; 1993, p. 158) claim that environmental issues in the form of disasters attract the attention of news media. Whereas the *Prothom Alo* placed considerable emphasis on a range of event-based articles (or spot reports) about disasters, which did not receive a similar level of attention in the English newspaper. In addition, the *Prothom Alo* also emphasised the ‘unnaturalness’ of the natural disaster and water ecology manifested in the coverage of embankments and pollution of river systems. *The Daily Star* also highlighted similar issues in its coverage but mostly in the form of opinion pieces rather than hard news articles. I address these differences later in this chapter following my discussion of the issue of climate change. Both newspapers attached similar degrees of significance to the highly visible degradation of river systems and to the comparatively invisible issue of accretion of land. What is of importance here is the symbolic value of such “invisible” issues, particularly the dramatisation of the display of the accretion of land, which had the potential to question climate science predictions for Bangladesh.

4.4 Climate Change

The previous section illuminated the relationship between natural catastrophes and ‘man made calamities’ as well as the intersection between river systems and climate change. This section highlights various themes concerning the issues surrounding climate change in Bangladesh between July and December, 2009. The dominant themes of the articles discussing climate change were identified through analysis of these topics. This analysis also facilitated an understanding of the manner and extent of similarities and differences of climate change coverage between the two newspapers.

Table 4.4 Topic Climate Change

Newspaper Variable	<i>The Daily Star</i>	<i>Prothom Alo</i>	Total
Politics % (n)	146 (47.4 %)	124 (52.7 %)	270 (49.7 %)
Impact % (n)	49 (15.9 %)	79 (33.6 %)	128 (23.5 %)
Economic % (n)	6 (1.9 %)	2 (0.8 %)	8 (1.5 %)
Community Action % (n)	17 (5.5 %)	10 (4.2 %)	27 (5 %)
Others % (n)	90 (29.2 %)	20 (8.5 %)	110 (20.2 %)
Total	308	235	543

Unlike their coverage of the previously discussed river systems, the two newspapers’ coverage of climate change showed considerable similarities in terms of the quantitative presence of different topics. While, the English newspaper articles focused more on ‘politics’,

those in the Bangla newspaper detailed the ‘impact’ or consequences of climate change. The following section explains the divergence and similarities through a detailed analysis of various topics including politics, impact, and the economic and human consequences. The discussion begins with climate change politics.

4.4.1 Climate Change as a Political Issue

Climate change politics (n= 270) can be divided into two streams. The first stream (n= 52) was triggered by India’s attempt to construct a dam in the eastern state of Manipur, a project that was likely to seriously affect the water flow in Bangladesh. According to the Indian Government plan, the Tipaimukh Hydroelectric Project would be built at the confluence of the Barak and Tuvai rivers, which is located approximately one hundred kilometres from the northeastern border of Bangladesh. Indian Government had issued the environmental clearance certificate in October, 2008, for the proposed project (Khalequzzaman, 2012), which triggered the media and public debate in both Bangladesh and India. The second stream of coverage (n= 128) detailed how different institutions including political and civil society organisations and experts had formed a united front for the purpose of seeking “climate justice” and for protecting the deltaic country from untoward environmental disasters in the lead up to the Copenhagen Climate Summit in 2009. While the proposed dam did not represent a spectacular environmental or natural disaster, it had all the earmarks of becoming a “creeping catastrophe” (Beck, 1995, quoted in Allan, 2002, p. 100) subsequent to its construction. The proposed project attracted significant coverage in both newspapers, which implicitly associated its construction in India with a looming climatic disaster in Bangladesh.

The two newspapers adopted a similar anti-dam position, arguing that it was both an environmental and an international legal question over the right to water management in

South Asia. However, the mode of presentation of this anticipated environmental crisis was different in the two newspapers. Whereas *The Daily Star* confined itself to mainly publishing opinion pieces written by experts and general commentators, the *Prothom Alo* carried out general reporting of the events related to this proposed project. These events included meetings and rallies organised by non-government activist organisations and the opposition Bangladesh Nationalist Party (BNP) to protest against the proposal. The newspapers' coverage often dramatised the issues in order to reveal the propensity for public outcry anticipating the ecological consequences of the dam in the northeastern Sylhet region of the country, which currently benefits from upper stream water flows from India. A case in point is the headline that appears below:

22 rivers will be dried up if Tipai Dam is built.

(The *Prothom Alo*, 9 July 2009)

Its articles on political rallies exemplified the patterns of coverage in the *Prothom Alo*, which predominantly emphasised statements made by politicians and activists at various meetings and rallies. In general, the *Prothom Alo* did not carry any investigative news items related to the proposed dam; it published a range of articles by political commentators, experts and former bureaucrats. Through the publication of these opinion columns, the *Prothom Alo* presented an informed picture which included not only the political perspective of Bangladesh, but also expert perspectives from both Bangladesh and India. The newspaper confirmed its anti-dam position by highlighting the opinion pieces which discussed the enormity of the potential crisis for Bangladesh. These articles compared the extent of the crisis to a devastating earthquake in China; as well, they mentioned the fact that even some Indian experts had rejected the idea of the proposed dam (see Appendix 4q). *The Daily Star*, which focused less on event-driven coverage, included an investigative item (see Appendix 4q) in its magazine section incorporating the viewpoints of both the 'voiceless' common people and the powerful authorities (i.e., the Indian bureaucrats).

One of the interesting aspects of this coverage was that it attempted to turn “environmental risk into a reality” (Beck, 1998; Allan, 2002) by incorporating the views of local residents and experts—from both Bangladesh and India—who were unequivocally critical of the potential hazards of the dam. Another interesting aspect of the coverage was that although the newspapers were critical of the Indian Government, they did not raise any questions about the policy that the Bangladesh Government employed when tackling these issues. First, the government in Bangladesh was freshly elected; so, the newspapers may have reasoned that a new government required some time to ‘sort things out’, particularly a sensitive issue such as the Tipaimukh dam which involved both bilateral and international level negotiations. Second, based on their previous experience of Indian dams, the newspapers may have assumed that they needed to directly intervene in this project threatening potentially huge environmental risk, irrespective of the political position in Bangladesh. Their assumption was underpinned by the powerlessness of Bangladesh to tackle the Ganges water sharing issue with its upper stream neighbour India exhibited throughout the last three decades. Thus, this journalistic attempt to intervene can be explained by the close interconnection between journalism and nation states which allows journalism to mediate and intervene in issues on behalf of the nation. The newspapers’ coverage clearly portrayed an antagonism between those potentially afflicted by the risks posed by a dam in Bangladesh and those who stood to ‘profiteer’ from the dam (Eide et al., 2009; Cottle, 1998; Beck, 1992).

The two newspapers adopted similar anti-dam stances in the context of India’s “disrespectful attitude” towards its lower riparian small nation neighbour. However, within this broad similarity, some divergence could be observed. The *Prothom Alo*, for example, carried different articles in connection with the proposed dam and the possible climatic impact on Bangladesh. Some painted a complicated picture of the politics between the two nations, the politics within Bangladesh, that is, between the government and the opposition parties, and most importantly, captured the position of civil society organisations opposing the dam. Articles in *The Daily Star*, while placing less emphasis on the general coverage, nonetheless argued strongly against India’s uncongenial attitude towards Bangladesh, their protest supported by the views of Indian experts who were also against the construction of the dam. So, it may be argued that whereas the *Prothom Alo* tended to approach the issue as an

unfolding matter by carrying numerous opinion pieces and spot news articles, *The Daily Star* intervened directly through its coverage of this crucial ecological issue.

Climate change in the national political context of Bangladesh was heavily preoccupied with potential future environmental hazards, which would exacerbate the climatic conditions of this delta land. In the next section, focus is upon another crucial aspect that emerged during the study period: tackling climate change in Bangladesh.

4.4.2 Bangladesh: Caught in the ‘Climate Crossfire’

When writing on the *global* aspect of climate change, the newspapers focused on the issue of climate assistance (n= 218), which had been raised by the country’s political leaders in different international forums and conferences in order to garner support for the donation of funds to help adapt to a changing climate. My analyses of the climate assistance coverage revealed a negative stance towards climate change in which politicians and activists expressed differing viewpoints on climate aid. As Rizwana Hasan, the executive director of the Bangladesh Environmental Lawyers’ Association (BELA), stated:

We don’t want the causes that produce climate refugees. However, we are confronting the causes of climate change (**Climate change impacts - North must pay ecological debts to south**, *The Daily Star*, 29 July 2009).

Subsequently, the *Prothom Alo* argued that this small nation was not only caught in a “climate crossfire”, but was paying the price for the excessive industrialisation of the rich nations (see Appendix 4r). Both newspapers published articles in which different activist organisations and experts demanded a review of the Geneva Convention of 1951, suggesting that it should incorporate special provisions for climatically displaced people. This call was

widely supported and later raised at the Copenhagen Conference by political leaders from Bangladesh. With reference to the articulations of some political leaders and activists, both newspapers disputed the term “climate assistance”, arguing that it should be referred to as “climate compensation” (**Call for legal framework to save climate refugees**, *The Daily Star*, 13 December 2009).

The articles in the two newspapers tended not to accept the notion of “assistance”: they preferred to ascribe responsibility for climatic disasters in Bangladesh to the developed countries. This was reaffirmed in the use of the term “crossfire” in the previously discussed item, which suggested that the country unfortunately happened to be in the middle of a disagreement between the rich polluting nations who could not agree to lower the level of the emissions in their respective countries. Although Bangladesh is at the opposite end of the spectrum of environmental pollution from the heavily polluting industrialised nations, it cannot escape the adverse effects of climate change. So, by using the term “crossfire”, the news media tried to justify and rationalise the demand for compensation from the polluting countries.

The discussion above clearly illustrates how the newspapers highlighted a set of claims by anticipating the displacement of people due to “excessive industrialisation” in the developed countries. These claims underpinned the notion of “environmental justice” that emerged in both the developed and developing nations’ arguing for environmental victims’ right to receive compensation from the polluting parties (Nash, 1989; Capek, 1993; Hannigan, 2006, p. 47). Although this was the dominant attitude towards climate change and associated issues, the Bangla newspaper continued to express diverse and critical views vis-à-vis the point of developing countries receiving environmental aid. Two articles published in the *Prothom Alo* criticised this position. One of them (**Mirroring Time: World climate vs. Bangladesh environment**, *The Prothom Alo*, 24 December 2009) with reference to the notion of a climate fund for Bangladesh, questioned the efficacy of reducing carbon emissions through financial aid. In other words, it questioned whether the relentless emission of carbon could be compensated for financially. It asked: Which activities engender pecuniary benefit for certain

sections of different regions? The important question here is: Who would ensure that the way this climate fund was utilised would benefit the climate-affected people of Bangladesh? The reality was, that the ordinary citizens of Bangladesh, who have traditionally been in the forefront of climatic disaster, mostly tackle these challenges by themselves.

The portrayal of a counter-position on the climate fund, that is, the demand for such a fund was quite invisible in quantitative terms. This does not suggest that the *Prothom Alo* opposed the Bangladesh Government and civil society groups' demands regarding the climate fund. Rather, its position challenged the unilateral accusation levelled at the developed countries; that is, that they were causing emissions and, by extension, climate change in Bangladesh. As suggested earlier, the *Prothom Alo* was not necessarily against Bangladesh's climate change position; it just wanted to remind everyone that Bangladesh should be careful about possible massive failure of its own environmental protection initiatives, such as those previously discussed in relation to river systems issues.

Clearly from the above, the climate fund issue received significant attention in Bangladesh's political sphere. The next section sheds light on why the country requested the fund. It also articulates the consequences of climate change which go beyond the scope of the immediate political sphere to affect everyone. In other words, the following section takes account of the coverage related to issues both contributing to and preventing climate change.

4.4.3 Impact of Climate Change

Concern regarding the 'impact' of climate change, which was predominantly demonstrated in the reporting of international investigations, research reports and local seminars, accounted for 128 articles including 49 in *The Daily Star* and 79 in the *Prothom Alo*. This coverage highlighted the propensity for climate change impact, e.g., salinity-led erosion in the Sundarbans mangrove forest, and the impact of a burgeoning population on the climate of

Bangladesh. The latter was also confirmed by the United Nations Population Fund Report 2009.

Although my observations revealed a lack of climate change-related investigative articles in both newspapers, there was no shortage of commentaries and opinion pieces by experts and politicians about the challenge of tackling climate change. Concerns about the paucity of climate change-related resources (Barnett & Campbell, 2010) were raised in the coverage of a regional academic and expert forum (see Appendix 4s). While both newspapers focused on the significance of climate change for Bangladesh, articles appeared more frequently in the English daily than in its Bangla counterpart. *The Daily Star* published a range of views from commentators including a scientist, a member of the IPCC panel, and a research officer from a non-government organisation, stressing the consequences of climate change based on overseas publications (see Appendix 4s).

The articles singled out the developed countries, asking them to adopt preventive measures to reduce global temperature and thus minimise the risk of melting glacial flooding. However, exposure to vulnerability revealed that the reasons for the global temperature rise were not always beyond the country's control. The reality was that some of the reasons stemmed from Bangladesh's public policy failure. A particular case in point is the meteoric rise of population numbers in this small country. The news media's extreme concern about this issue was manifested in such headlines as '**Population bomb is ticking**' (*The Daily Star*, 11 December 2009).

Within five months of the publication of this report, the *Prothom Alo* published a series of investigative articles (see Appendix 4s) on the impact of increasing population. The analysis of the coverage shows that while the newspaper was more than a little critical of the burgeoning population figures, it was not fully convinced of their direct association with climate change. As the writer of one of the articles opined, the increasing rate of population was not a problem at all: the main problem was the increasing rate of consumption, both in

the Western world and in a section of the population in Bangladesh. The general assumption of the series was that the increasing population numbers throughout the country left a huge ecological footprint. In essence, both newspapers identified population as the “number one problem” associating it with a potential food shortage.

One of the articles in *The Daily Star* explicitly associated the impact of increasing population with climate change:

The root cause of climate change lies not so much in industrialization, but in the sheer number of people undertaking industrialization at the same time ... Neither population nor climatic conditions are static. But the driving force is the population growth, some would even dub it “population explosion” (**Population and climate change**, *The Daily Star*, 21 December 2009).

The above analysis depicts how the two newspapers defined the impact and prevention of climate change in regard to both global and local issues. *The Daily Star* in particular emphasised international research while the *Prothom Alo* expressed the issue in terms of increasing population numbers and associated food security. The newspapers focused on the country’s increasing population which in a sense reaffirmed the ‘globalised’ perspective of the North. According to this perspective, “our (North) environmental problems (climate change, ozone depletion) are caused by ‘their’ development problems (forest loss, overpopulation) which are solvable only by embracing “sustainable development strategies” (Redclift & Woodgate, 1994, pp. 64-65, quoted in Hannigan, 2006, p. 75). *The Daily Star* even used the American Population Studies academic and demographer Dr Paul Ehrlich’s controversial book *The Population Bomb* as a headline for one of its news stories. The *Prothom Alo* also raised the issue but in a different form to *The Daily Star*. It presented the issue from a micro-level that exposed a grim picture of the impact of increasing population on the environmental sustainability of mega cities such as Dhaka. It also raised questions vis-à-vis the book’s prescription of population control in the developing countries, which are

densely populated by low-income people who lack the high level consumption responsible for emissions.

While the coverage of the issue of population in *The Daily Star* was not as diverse as that of the *Prothom Alo*, this does not mean that the English newspaper was uncritical of the issue. Rather, due to its language, *The Daily Star* enjoys wider access to international resources; and its audiences are more aligned with the viewpoint of global research outcomes than those of its Bangla counterpart. Thus, it may be that access to a wider research field may have influenced *The Daily Star's* coverage making it more susceptible to the perspectives of the North. This could be the reason why the articles and opinion pieces in this newspaper were more ready to accept the rhetoric of environmental problems caused by increased population numbers instead of raising critical questions about population as a problem, or sustainable development.

4.4.4 'Economic' Exploitation

This section follows from and extends upon the previous discussion by reflecting on how the unrelenting population rise, along with natural disasters, has led to economic exploitation of natural resources across the country. In Bangladesh, approximately 80 per cent of the population rely heavily upon the country's natural resources (Nishat et al., 2002). The 'economic' exploitation of these resources received minimal attention in the news coverage: it was mentioned in eight articles only in both publications. Although the despoliation of natural resources was endemic across the country, the two publications tended not to explicitly associate it with climate change. As a consequence, the economic exploitation of natural resources was rendered largely invisible in these newspapers during my study period. But, two articles published in the *Prothom Alo* during the months of November and December expressed their concern regarding the 'economic' exploitation of natural resources. They claimed that rapid deforestation was responsible for exposing the region to a range of

natural calamities including storms, cyclones, and tidal bores. Furthermore, they revealed that in both the southern coastal region and the northern arid land (North Bengal) there was a widespread practice of illegal tree removals by miscreants who were allegedly sponsored by a number of politicians and by unscrupulous officials employed by the Forestry Department. The extent of the rapid depletion of forests was clear from the statistics provided in an investigative news articles titled **Disappearing forest and Bio diversity: Endangered coastal environment** (The *Prothom Alo*, 22 November 2009).

These articles, which appeared in the *Prothom Alo*, not only detailed the mismanagement of natural resources in Bangladesh, but highlighted the plundering of forest resources by a cohort of unscrupulous businessmen and corrupt public officials who failed to protect the pristine forest in the country's coastal belt, particularly in the vulnerable Southwest region which in recent times has experienced several damaging cyclones (Sidr, Aila). These cyclones, which many be attributed to the consequences of climate change, caused a particularly high level of damage to property and life in the coastal regions due to the absence of protective forests.

While the articles in the *Prothom Alo* made explicit the rapid depletion of forests, and the resultant impact on bio-diversity, the coverage in *The Daily Star* emphasised different aspects of the economic exploitation of natural resources in its reporting of calls for the protection and conservation of forests across the country (see Appendix 4r). The significance of reporting on these “calls” was that such news articles mandated the despoliation of natural resources which contributed to desertification in some parts of the country as a valid news peg and an issue of broad social concern (Tuchman, 1978, p.134).

4.4.5 Summation

The characterisation of different climate change issues, such as the proposed Tipaimukh Dam and climate aid, suggests a strong sense of the search for environmental justice to redress the

unequal distribution of environmental burdens including industrial facilities, pollution and ineffective public policy (Hannigan, 2006; Schnailberg, 1993). Overall, *The Daily Star* carried more comments and editorials about climate change than the *Prothom Alo* which focused on publishing news and feature articles about climate change from the grass-root. By adopting a bottom-up approach, the *Prothom Alo* exposed the destructive and unscrupulous activities directed towards the country's natural resources and their impact on climate change. Although not to any great extent, the newspaper was nevertheless critical of the notion of climate compensation, and of a 'prescription' for population control without any cap on consumption.

Overall, the coverage of river systems and climate change in the two Bangladeshi newspapers differed significantly from each other. While river system issues were dominated by natural and *unnatural* disasters, climate change was predominantly subjected to policy issues at both the international and national levels. After comparison of the coverage of the two issues in Bangladesh, a few assertions may be made. First, as a micro-level issue, the river systems received the attention of the newspapers in the latter's portrayals of the plight of 'erosion' victims as a natural disaster, and, of the irregularities in the maintenance and construction of embankments as an *unnatural* adversity, which had the capacity to exacerbate the intensity of the erosion.

The *Prothom Alo* in particular strongly associated the unprofessional conduct of corrupt officials and their accomplices in the political and economic fields with the *unnatural* events that unfolded during my study period, vents that have been identified as the reality behind the inestimable misery endured by millions of flood-induced homeless people. Both newspapers also identified the endemic pollution and illegal earth filling of riverbanks as yet another manifestation of '*unnatural* adversity' due to the failure of the authorities to protect the region's water bodies.

While the coverage in the two newspapers seemed broadly similar, their delineation of various issues differed on occasion. When establishing certain claims over others, the *Prothom Alo* relied more on news and feature articles whereas *The Daily Star* utilised more commentaries. This was evident in their analyses of the effects of climate change on the country's river systems. The two publications did, however, challenge the IPCC's prediction that two-thirds of the country would be submerged within years, a prediction that had been verified through the incorporation of IPCC expert viewpoints in the *Prothom Alo*. *The Daily Star*, on its part, questioned the IPCC's prediction vis-à-vis sea level rise through a number of opinion pieces.

However, the negative portrayal of (or challenge to) the IPCC's prediction did not necessarily mean that the two newspapers favoured the opinions of climate sceptics. Rather, these publications put emphasis on the "accretion of land" presumably because they wanted to show that they were open to both 'sides' of the climate change debate, a common feature among media organisations across the world.

The ways in which both newspapers inflated the issues could also be interpreted as their eagerness to engage in new policy positions pertinent to the tackling of climate change. They were inclined to portray Bangladesh as an innovative and climate adaptive nation by highlighting: (a) the accretion of land; and, (b) the protection of said land through the construction of dykes in the coastal regions. It could also be argued that it was a discrete attempt to dispute the "western ecological neo-imperialism" which assigned Bangladesh permanently to a passive role on the receiving end of climate change. This attempt was significant because Bangladesh—and, by extension its news media—was also regarded as permanently reliant on the production of Western knowledge. The two newspapers showed signs in their coverage that they were willing to challenge these assumptions. Articles in the *Prothom Alo*, for example, responded by raising questions about the justification of climate aid and the role of population control in emissions reduction.

4.4.6 Conclusion—Comparisons of Issues: Australia and Bangladesh

As discussed earlier, the coverage of river systems in Australia was dominated by policy issues and raised direct questions about the efficacy of the existing policy of water buyback for the Murray-Darling system. As well, it questioned the proposed legislation's ability, i.e., the "polluter pays" or "Emission Trading Scheme" not only to help reduce carbon emissions but to ensure a sustainable future for the Murray-Darling Basin. While the Australian news media were found to engage in policy debate about the effects of the low flow of water in the Murray-Darling Basin, the Bangladeshi publications mainly dealt with river-related natural disasters. These findings are not surprising given that Australia has a dry and arid landscape while low-lying Bangladesh is climatically highly flood-prone (Potter & McKenzie, 2007; Dasgupta et al., 2011). In Bangladesh, the news media characterised the issues centered on river systems by the devastating effects of overflowing rivers, albeit with varied degree. While the *Prothom Alo* emphasised the effects of overflowing rivers, the *Daily Star* adopted a broad approach, focusing on the reasons for the erosion of the riverbanks in the southern parts of the country.

Here, the point of difference between the nations is quite clear; whereas the Australian news coverage directly intervened in the policy process relating to river systems, the coverage in Bangladesh rarely engaged in such deliberations. Although the Bangladeshi newspapers occasionally raised issues which had potential policy implications (e.g. embankments), there was a significant lack of scrutiny of the relevant authorities. Thus, in this respect, the level of engagement differed from that in Australia.

Compared with the coverage of the politics of river systems and the impacts of climate change, there was less evidence of economic topics pertaining to river systems, and items, either emphasising or manufacturing 'doubt' about the climatic impact on river systems in the newspapers during my study period. However, both were still very significant. In Australia, the two newspapers were strikingly different in their coverage of economic topics which, as

discussed earlier, gave rise to a binary debate concerning the economy and the environment (Shabecoff, 2004). The articles in *The Australian* were keen to highlight the economic imperatives of environmental degradation, such as the lack of availability of water in the river basin, whereas the articles in *The Sydney Morning Herald* identified economic activities responsible for the deterioration of the rivers and the environment in general.

Similar to the *Sydney Morning Herald* which declared individuals and private businesses responsible for the deterioration of river health, the Bangladeshi newspapers ascribed the responsibility for the degradation of rivers in and around Dhaka to individuals and businesses who illegally dumped waste and encroached on river banks. However, the extent of and degree to which these newspapers displayed their conservationist stance (particularly the *Prothom Alo*) was far greater than those of *The Sydney Morning Herald*.

Emphasising Doubt

Topics and perspectives relating to environmental doubt were comparatively less visible and at times more embedded in the different matters related to climate change in Australia. As discussed earlier, *The Australian* carried a range of in-house and guest columns (McNair, 2000) written by their preferred experts to selectively emphasise the uncertain aspects of climate science, and by extension, to generate doubt in the public mind about the effects of climate change on the Murray-Darling Basin. These opinion pieces, which bore special significance, had the capacity to demonstrate the different positions adopted by the various news organisations. While the articles in *The Australian* subtly raised questions by giving prominence to aspects of uncertainty regarding climate science, articles in *The Sydney Morning Herald* distanced the publication from a sceptical position, flagging its positive orientation to climate change by only reporting such events as news rather than as authoritative knowledge or argument. This finding is consistent with previous investigations (Manne, 2005; Bacon, 2011) into climate change coverage in *The Australian*. In addition to exploring climate change, this study's examination of the Murray-Darling River systems

revealed how articles in this newspaper's justified its position against climate change policy by claiming to 'support the broader economic environment'

In Bangladesh, the two newspapers published very few articles about doubt, and, for this reason, doubt was not at the forefront of their coverage of river systems and climate change. In terms of the impact of climate change, the coverage in Bangladesh offered a very positive representation of the river systems, arguing that the incredible rate of sedimentation from rivers would lead to the emergence of a huge landmass in the river mouth and coastal areas (i.e., accretion of land). However, the main premise of these articles was at odds with Bangladesh's official climate change policy, which had been strongly aligned with scientific predictions (IPCC, 2007) and other investigations that have consistently argued for increased frequency of natural disasters (floods, cyclones) in this country due to climate change (Dasgupta et al., 2011). While the doubt related topics in Australia and Bangladesh both raised questions about scientific findings (e.g., IPCC) on climate change, the purposes were significantly different. The articles in *The Australian*, for example, attempted to oppose the market solution for climate change. In the case of Bangladesh, the sheer insignificance of the coverage could be deemed a confirmation of its awareness of the global wave of scepticism.

Dominant Climate Change Topic

Political topics dominated the coverage of climate change in both countries, in particular a parallel can be drawn between the two countries' coverage of the Copenhagen summit in 2009. The immediate point of similarity was that attention centered on the issue of climate aid. While the Bangladesh coverage invoked the notion of environmental justice (Hannigan, 2006), it disputed the term 'climate aid' arguing that the country was not a significant contributor to greenhouse-gas emissions (Shanahan, 2011). Rather, it was claimed, Bangladesh was caught in the 'climate crossfire' due to heavy industrialisation in the developed countries. For these reasons, in their deliberations about various topics at the Copenhagen Summit, the news media argued for 'climate compensation' rather than 'climate

aid' from the 'polluting' industrialised countries. Similarly, but from a different perspective, the news media in Australia (chiefly *The Australian*) questioned the term 'adaptation fund', arguing that climate-related aid should be considered a kind of development aid. The two Australian newspapers also questioned the capacity of climate aid to assist these countries adaption to climate change.

The newspapers in Bangladesh, which also questioned the justification of using climate aid to assist the real victims of climate change, asked how heavy emissions by the developed countries could be compensated for in monetary terms. However, this negative response to climate aid was a peripheral rather than a dominant trend in the country's newspapers. This also characterised the coverage in *The Sydney Morning Herald*. Broadly speaking, both newspapers in Australia associated climate aid with a condition 'imposed' on developing nations to sign the climate change treaty in Copenhagen. The wide support for climate aid may be explained by the fact that the newspapers in Australia were inclined to highlight the influence of Australia on the global climate negotiation process.

Secondary Climate Change Topic

Economic topics were the second most frequently reported subjects in Australia. These articles mainly dealt with the effects of the proposed emissions regulation on various of the country's industries including farming, mining, and real estate; and, it was reported quite differently in the two newspapers. Whereas *The Australian* argued that business communities would lose due to the increased costs associated with the proposed tax and subsequent job losses, *The Sydney Morning Herald* argued to the effect that the compensation package attached to the proposed tax would benefit Australian industries.

Unlike in Australia, both newspapers in Bangladesh voiced similar concerns about the effects of climate change from both global and local perspectives. The effects were the second most significant issue in their coverage of climate change, the first being the politics of climate

change. The two newspapers mainly highlighted two issues: a) the potential risks associated with climate change alluded to by various international research papers, e.g., increasing salinity as a sign of rising sea levels; and, b) the burgeoning population in this small delta land, ineffective population policy, and the impact of substantial population increase on the country's overall climate. In contrast to the coverage in Australia, economic topics received minimum attention in the two Bangladeshi newspapers: they mainly claimed that widespread despoliation of natural resources across the country was responsible for economic and environmental degradation. Here, I want to stress that the two newspapers did not explicitly infer a relationship between the despoliation of natural resources and climate change; but, the *Prothom Alo* linked the impact of deforestation to the increase in the number of natural calamities.

Compared to their coverage of the politics of climate change, the impact and economic issues of climate change found less prominence in the two newspapers in Bangladesh. Among the reasons underpinning this lack of prominence was the fact that Bangladesh played an active role in the negotiations at the Copenhagen Climate Summit that aimed to protect the G-77 developing countries' (Khan, 2009) demands for more climate compensation from the western developed nations. In this context, the news media in Bangladesh may have preferred not to expose issues such as malpractice and corruption, which they saw as contributing to increased deforestation, or how the country's burgeoning population was effecting climate change, both signalling signs of policy failure on the part of the national government.

Topics related to the physical impact of climate change received surprisingly little attention in Australia. In some articles in the Australian newspapers, global warming was explicitly mentioned as contributing to the coral bleaching in the Great Barrier Reef. The newspapers also emphasised the potential for rising sea levels predicted by the CSIRO and IPCC, and their impact on real estate in parts of the state of Victoria. In contrast, the news media in Bangladesh paid little attention to the depletion of natural resources and its capacity to exacerbate climate change. This lack of emphasis on these two significant issues may be

explained by the newspapers' proclivity to portray Bangladesh as a victim of global warming, thus justifying its quest to 'environmental justice' at the Copenhagen Summit.

In Australia, I found river systems and climate change—local and global issues respectively—strongly related to each other, both at the policy and scientific levels. This relationship was palpable, particularly in the thorough scientific investigations conducted by the CSIRO and the Bureau of Meteorology. However, the extent to which river systems and climate change were shown to be related to each other differed in the two countries. Relatively few newspaper items in Bangladesh presented a positive picture of the impact of climate change on the river systems based on scientific investigation (accretion of land). Their negative response can be explained by highlighting the relationship between journalism and the nation state. In this particular case, journalists in Bangladesh tended to portray the country as an adaptive and innovative nation in order to dispute “western ecological neo-imperialism” (Giddens, 2011; Anderson, 1991). For Bangladesh, the pressing issue was the severe ecological degradation of its river systems, not the effects on them of climate change. So, elements of climate change mattered less in relation to micro-level river systems issues. However, in the context of global climate change policy, the pattern of attention in Bangladesh was similar to that of Australia. This, however, does not suggest a similarity in the editorial positions of all the newspapers in this regard. Rather, they differed because Australia saw itself as a developed country responsible for a considerable level of emissions whereas Bangladesh, a developing nation, saw itself as at the receiving end of global emissions.

Chapter 5

Sources: Australian newspapers

5.1 Introduction

This chapter analyses how Australian journalists drew upon various sources when framing their coverage of the Murray-Darling river systems and climate change in *The Sydney Morning Herald* and *The Australian*. My analysis reveals the journalistic strategies employed in the selection and representation of sources in the coverage of the two selected issues: river systems and climate change. In this chapter, the flows of information between the different interest groups, e.g., politicians, scientists, conservationists-cum-activists, and economic interest groups (e.g. businesses, farmers and irrigators), are examined to establish how the news media responded to the interests of these diverse groups. It also seeks to ascertain how far the news media were able to uphold their critical gaze (Berkowitz, 2009) during their coverage. This exploration will not only provide insight into how journalists and their sources coexist (Gans, 1979), but will also illuminate how they shape the coverage of the Murray-Darling Basin and climate change.

This chapter should be read in conjunction with Chapter 4 in which the mapping of river systems and climate change coverage was characterised by strong economic, ecological and political dimensions. I take particular interest here in the process and degree to which different sources (see Tables 5.1 & 5.2)—including principal sources—were used to confirm or reject various premises in the selected articles. The term ‘principal source/s’, in this context, refers to sources (such as politicians, experts, bureaucrats, activists and business sources) who provide crucial information for the news articles. This focus on the various sources provides a means to reveal the journalists’ capacity to verify statements from their principal sources as well as to identify responsibility for the issues raised in the items. ‘Verification’ means critical examination of any contestable statement made by the sources. Whether an article is verified or not is determined by going through the items carefully and looking for signs of critical examination (such as, the journalists cross-checking of stated

facts with other sources, raising questions regarding the logical plausibility of the sources' claims).

Table 5.1 Sources - River Systems Australia

Sources	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Political	29 (42.64%)	6 (21.42%)
Bureaucrat	3 (4.41%)	1 (3.57%)
Experts	14 (20.58%)	12 (42.85%)
Activists	5 (7.35%)	1 (3.57%)
Economic/Business	15 (22.05%)	7 (25%)
Others	2 (2.94%)	1 (3.57%)
Total	68	28

Table 5.2 Principal Sources - River Systems Australia

Principal Sources	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Political	5 (21.73%)	1 (11.11%)
Bureaucrat	2 (8.69%)	1 (11.11%)
Experts	7 (30.43%)	5 (55.55%)
Economic/Business	9 (39.13%)	2 (22.22%)
Total	23	9

In the following sections, I highlight both the presence and process of representation of various principal sources in the coverage in order to understand how the journalists put these issues in such a way (Reese, 2010) as to promote a particular ‘interpretation’ or frame. As suggested earlier, the process of representation of various sources was examined through the identification of ‘attribution of responsibilities’ and ‘verification of sources’ in the various principal source-dominated articles. Although the news reports framed attribution of responsibilities to a number of diverse reasons and organisations (see Tables 4.3, 4.4, 4.5, 4.6, 4.7 & 4.8), this chapter will focus only on the dominant ‘attribution of responsibilities’ when certain sources constitute the principal source of the selected articles. Together, attribution of responsibilities and the verification of sources allowed scrutiny of broader journalistic frames (Price et al., 1997; de Vreese, 2005) such as conflict and legitimacy that are invoked in the selected articles of both newspapers.

The role of sources in river systems reporting

Overall, my analysis demonstrates that economic and expert sources were more visible in the debate surrounding the Murray-Darling River Basin. These were followed by a relatively low presence of activist and political sources. However, there was a noticeable difference between *The Sydney Morning Herald* and *The Australian* in the prioritisation of sources. Whereas the latter used a greater number of economic sources (n=9 out of 15) than the former, *The Sydney Morning Herald* used more expert sources (n=5 out of 12) than *The Australian*. Based on this quantitative finding, in the following section I examine expert sources in the coverage of Murray-Darling River system, followed by economic and political sources. These sources were considered to be ‘principal sources’ (e.g., politicians, experts, bureaucrats, activists and business sources) who provided the crucial information presented in the articles. This focus on various sources served as a means to reveal the journalists’ capacity to verify statements received from their principal sources as well as to identify responsibility for the issues raised in the articles. My analysis also found that the journalists selected both principal and other sources to portray the river issues in their attempts to promote a “particular interpretation” of said issues. Overall, the articles in the two newspapers used two *generic* frames to “convey, interpret and evaluate information” (Reese, 2010; p.10) pertaining to the river issues through the four types of sources.

5.1.1 ‘Expert’ Sources in the ‘Legitimacy’ Frame

‘Experts’ are an integral part of the journalistic production process (Levi, 2001; Conrad, 1999; Croteau & Hoynes, 1994; Boyce, 2006). They possess substantial authority and significant information; and, for these reasons, their deeper understanding of various issues is beneficial to society (Beck, 1992). In this section, I analyse how the expert (n=12) as a principal source is used in a ‘legitimacy’ frame which emphasises certain position/s as “desirable, proper or appropriate within some socially constructed system of norms and values” (Suchman, 1995, p. 572).

Table 5.3 Attribution of Responsibility - Experts as Principal Sources

Responsible Entity	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	3 (42.86%)	--
Politicians	--	2 (40%)
Climate Issues	3 (42.86%)	2 (40%)
Economic Activities	1 (14.28%)	--
Others	--	1 (20%)
Total	7	5

Table 5.4 Verification

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	2 (28.57%)	3 (60%)
Verified	5 (71.43%)	2 (40%)

Experts' views were quite dominant in the coverage of the Murray-Darling River systems, with approximately 30 per cent (n=7) and 55 per cent (n=5) in *The Australian* and *The Sydney Morning Herald* respectively. In these expert-dominated articles, both papers highlighted the dry condition of the river systems as one of the precursors to changing climatic conditions. While the articles in *The Australian* showed that the farmers were the hardest hit both because of government policy (42.8 per cent) and climatic conditions (42.8

per cent), *The Sydney Morning Herald* attributed their dilemma to climate issues alone (40 per cent). Following a close evaluation of the above 12 articles, six were selected for further examination of the positioning of expert sources and attribution of responsibilities for deteriorating river conditions. These items effectively intersected the perspectives of farming and scientific communities, and aided in the examination of journalistic verification of different statements made by the sources.

My qualitative analysis included two articles from *The Sydney Morning Herald* which depicted the impact of changing weather patterns on the ‘geographical heart’ of Australia, i.e., scarcity of water, consecutive failure of crops and closure of businesses in regional communities. While the articles in this newspaper argued to the effect that some aspects of Australia’s climate were in a ‘mode of alteration’, most of the farmers who were direct witnesses and victims of these changes were not so sure. A case in point here is an 862-word investigative feature article (**Everything’s dried up and communities begin to crack**, *The Sydney Morning Herald*, 28 November 2009) which used six sources including two climate sceptics, a climate change believer farmer, and three experts from the field of climate science. The use of farmers as sources may be explained as a discursive strategy employed by the newspaper to ‘distance’ (Snow & Anderson, 1987 in Schneider, 2010) itself from claims about climate change. This strategy also shows how the majority of farmers were unconvinced about the typical characteristics of climate change, such as less rain and the drying conditions of the Basin. However, in another article, the newspaper challenged the farmers’ ‘unconvinced’ position by incorporating view of Graham Jones, Director of the Centre of Regional Climate Change Studies at the Southern Cross University, who asserted:

Dorrigo rain and the Bellingen floods were examples of extreme events ... Climate change is not just about warmth. It’s about extreme events of any kind. And it’s not that we didn’t have them in the past. It is that we have them more frequently (**Vanishing tracts**, *The Sydney Morning Herald*, 15 August 2009).

Through the juxtaposition of quotes from farmers and climate change experts, the articles in *The Sydney Morning Herald* held climate change responsible (see Table 5.3) for the ongoing woes of the farming communities. In essence, the use of experts' evidence to challenge the farmers' sceptical position allowed the newspaper to distance itself from the climate change debate. The articles utilised the farmers' 'unconvinced' position to strengthen the impact of and concerns about climate change and its effects on the Basin.

Articles in *The Australian* also provided coverage of the changing weather pattern and its impact on farming communities across Australia. One example was a 536-word item which commenced with a number of positive aspects of changing weather patterns, such as good rain in Queensland due to the La Nina weather pattern during 2008. The central focus of this succinctly-written item was on predictions and analyses produced by the National Climate Centre (NCC), a section of the Bureau of Meteorology (BOM). These predictions were highlighted in the report to explain the possibility of drier conditions, such as El Nino and the Indian Ocean Dipole, because of changing weather patterns. According to David Jones, Head of Climate Analysis at the NCC:

There was a strong statistical relationship between El Nino events and below average rainfall. Many El Nino do lead to drought but not every time. There is a danger in thinking El Nino equals drought. It does often, but it doesn't always (**El Nino overshadows summer crop plans**, *The Australian*, 8 July 2009).

The above quotes reveal a sense of improbability about the prediction of drought caused by El Nino. In particular, the use of expressions such as 'does often' and 'doesn't always' in relation to El Nino weather conditions and drought is quite significant. This expert's view allowed the article to invoke a general 'uncertainty' regarding the scientific process of weather prediction. It also revealed the way in which the article associated the drying conditions of the Murray-Darling basin with a 'weather pattern' rather than with climate change.

The previously discussed article in *The Sydney Morning Herald* described how communities' assets were drying up in regional New South Wales. In contrast, an article in *The Australian* explained how farming communities in Queensland were reaping the benefit of changing weather. One Queensland farmer who benefited was Mr Lindsay Kreig who said: "The challenge for Australian farmers is to manage climate variability. Climate change is here and El Nino might be here, but these are the things we are getting very used to dealing with." The selection and use of terms such as "climate variability" and "getting very used to" are significant here. By using the farmer's viewpoint, this article suggested that there was nothing unexpected about the changing weather pattern; thus paying attention to the issue of climate change might not be appropriate.

Reference to El Nino as a weather-related event also appeared in *The Sydney Morning Herald* article, which reflected on the high possibility of drier conditions across eastern Australia. Similar to *The Australian*, the article also employed David Jones, Head of Climate Analysis in the BOM, as a source but used a different quote altogether:

It's (El Nino) here. "The only question mark is how long does it last" ... As the El Nino strengthens, the chance of reduced rainfall would increase, with the "very real risk" it would exacerbate drought conditions in the Murray-Darling Basin and Victoria (**El Nino: dry times ahead**, *The Sydney Morning Herald*, 11 July 2009).

It is important to note here that unlike the item in *The Australian*, which attempted to highlight better agricultural production as a corollary to the influence of La Nina, *The Sydney Morning Herald* article discussed only the BOM's forecast, emphasising the possibility of reduced rainfall and lack of available water due to climate change. It becomes evident that from these different emphases that the articles implicitly attempted to construct contrary narratives to each other using similar phenomena and similar sources.

From the above, it may be suggested that the articles in *The Australian* applied journalistic professional norms (Tuchman, 1978; Boykoff & Boykoff, 2007), i.e., verification, to implicitly challenge the evidence of climate change. It used two sources—the expert and the farmer—who verified each other’s statements, whereas *The Sydney Morning Herald* article used only the expert source. Here, I want to stress that in the case of the articles in *The Australian*, it is not the absence of sources which is important; rather, it is how the presence of sources and the process of verification have the capacity to obscure the broader consensus about climate change and its impact on the Basin. From one perspective, *The Australian* presented professionally rigorous journalistic content, consistent with the quantitative findings showing the presence of more verified items (n=5) in that newspaper compared to *The Sydney Morning Herald* (see Table 5.4).

It is worth noting, however, that both newspapers used direct and indirect quotes by climate scientist Dr David Jones. However, *The Australian*’s emphasis was on the ‘uncertainty’ surrounding his prediction. Critics of climate science argue that because ‘uncertainty’ is inherent in the scientific process (Zehr, 2000), it does not allow scientists to predict the impact of climate change in absolute terms. This argument is made despite the fact that research organisations such as the CSIRO have already produced ample evidence about climatic impact on the Basin. For both newspapers, the issue at stake was the drying conditions of the Murray-Darling Basin and their impact on farming communities. But, whereas the articles in *The Australian* defined the drying conditions as a product of ‘climate variability’ related to the cyclical return of El Nino and La Nina weather patterns, the articles in *The Sydney Morning Herald*, while not discounting the effects of La Nina and El Nino, strongly emphasised the broader impact of climate change on the Basin. Thus, expert perspectives were given prominence in both newspapers to emphasise the climatic condition responsible for the Basin’s degradation. However, the selection of sources and, in particular, the use of farmers in the process of verification rendered each newspaper’s coverage different. While the articles in both newspapers characterised the drying conditions as a climate issue, they reported it from two different perspectives, i.e., ‘climate variability’ (*The Australian*) and ‘climate change’ (*The Sydney Morning Herald*).

The above discussion demonstrates that writers of the articles in both newspapers selected experts as principal sources for articulating the effects of climate change on the Basin. Farmers were used as crucial auxiliary sources to reinforce the ‘legitimacy’ frame used by the two newspapers to showcase the morphological conditions of the Basin. The following section discusses how this farming imperative related to the representation of economic sources in the news coverage of the Murray-Darling Basin issues.

5.1.2 Economic Sources in the ‘Conflict’ Frame

As suggested in Chapter 3, while farming-related economic sources were a crucial focus of the coverage by *The Australian*, *The Sydney Morning Herald* revealed minimal evidence of these sources. They were used in a conflict frame which highlighted the “conflict between individuals, groups or institutions” (Semetko & Valkenberg, 2000; Neuman et al., 1992). This study found that only ten items had cited farming-related economic sources as principal sources. Of these, nine appeared in *The Australian* and one in *The Sydney Morning Herald*. Six of the items in *The Australian* attributed responsibility for the degradation of the Murray-Darling River systems to the Federal or national government; but, the article in *The Sydney Morning Herald* ascribed it to ‘economic activities’ surrounding the river systems. As there was a paucity of economic sources as principal sources in *The Sydney Morning Herald* (one only), I decided to limit my examination to a single case concerning the representation of economic sources for analysis. The case in point is the coverage of Cubbie Station in Queensland. The two newspapers’ coverage of the Cubbie Station shed light on the intersection of environmental justice and economic progress, a topic earlier discussed in Chapter 4.

Table 5.5 Attribution of Responsibility- Economic Sources as Principal Sources

Entities	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	6 (66.7%)	--
Climate Issues	1 (11.1%)	--
Economic Activities	1 (11.1%)	1
Others	1 (11.1%)	--
Total	9	1

Table 5.6 Verification

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	4 (44.4%)	--
Verified	5 (55.6%)	1

In its feature article, *The Sydney Morning Herald* exposed how recent drought had heavily impacted on the economic viability of the controversial Cubbie Station which was for sale with a price tag of \$450 million. The announcement regarding the sale of Cubbie Station, made by its Chairman Keith De Lacy (economic source), engendered a strong reaction. While

one quarter suggested that either the Federal Government or the Queensland Government should buy the Cubbie to gain control of hundreds of (469) gigalitres of water from the Murray–Darling water basin, others argued that ‘public purse’ should be spared from buying such a large and thirsty environmentally unsustainable project in this, the world’s driest island continent.

This particular feature item, which had four sources, depicted Cubbie as “burdened by debt, ravaged by years of drought and pilloried by its critics”, clearly elucidating the factors which led to the proposed sale of Cubbie Station. The feature positioned De Lacy as a very crucial information provider for this item. De Lacy commented as follows:

The property had only one reasonable season in the past seven years but rejects the suggestion that Cubbie is not sustainable in the long term or that it is a burden on the Murray Darling. ... Cubbie takes just .28 per cent of the river systems water and takes from floodplain only “what would be naturally consumed on our land (**Letting the rivers run free**, *The Sydney Morning Herald*, 22 August 2009).

From De Lacy’s perspective, the Cubbie’s problem was not only about environmental sustainability, but also about its ‘debt burden’ driven by the global economic downturn. However, this was not the view of UNSW environment scientist Professor Richard Kingsford (an expert source), who regarded Cubbie as responsible for huge irreparable damage to the Basin. In the article, he further opined that: “The tragedy is its (Cubbie) legacy on the rivers, the floodplain and the Narran Lakes. It’s going to be a running sore for the next hundred years.”

The expert’s attempt to check or evaluate the Cubbie chairman’s position demonstrates the degree to which the article in *The Sydney Morning Herald* attempted to invoke a conservationist perspective by challenging the Cubbie authority’s position which emphasised that “it is (not) a burden on the Murray-Darling”. However, De Lacy’s comment was

interpreted somewhat differently in *The Australian* an article titled '**Heat on Canberra to purchase giant cotton station**' (*The Australian*, 17 August 2009). The article in *The Sydney Morning Herald* clearly indicated that De Lacy did not want the Commonwealth to buy Cubbie because he did not want to see it closed down. De Lacy further commented:

We've tendered some water licenses in the past and the government wasn't interested ... But now the whole of Cubbie is on sale. It is up to the government to decide ... We've had [a] long period of drought [and] that's the main reason why we're on the market (*The Sydney Morning Herald*, 17 August 2009).

This article used two economic sources and an activist source. Keith De Lacy's statement about selling, and the article's position regarding public procurement of Cubbie Station, were to some extent vindicated when the newspaper verified De Lacy's statement through Dr Arlene Buchan, a campaigner for the Australian Conservation Foundation's Healthy Rivers, who said: "Cubbie would be a great purchase, in part or in whole". The article in *The Sydney Morning Herald* also included an interview with Peter Cosier of the Wentworth Group of Concerned Scientists. Cosier said: "The government should buy the Cubbie if that results in a long-term improvement in the health of the river system". However, the item fell short of explaining the 'long term improvement' in the ecological value of the river systems from such a large water procurement.

Regarding the process of verification of the above item, it is important to note that both Dr Buchanan, an activist who has been fighting for environmental flows in river systems, and Peter Cosier, an expert from the Wentworth Group of Concerned Scientists were cited to strengthen the position of the principal source, Cubbie Station Chairman Keith De Lacy. Overall, it may be inferred that the newspapers sought to frame the conflict in two ways through the positioning of competing sources related to the Murray-Darling issues. While the article in *The Sydney Morning Herald* suggested that the Cubbie issue was a 'tug of war' between the business (Cubbie) and environmentalists, *The Australian* portrayed it as Cubbie

versus the government in which activists and experts were cited to strengthen the position of the business. In this process of scrutiny, different reporters used different auxiliary sources to emphasise certain aspects over others. The article in *The Sydney Morning Herald* drew upon expert sources to challenge the position adopted by Cubbie's chairman. In contrast, the articles in *The Australian* used activist sources to support the proposed Commonwealth purchase of the station.

The above discussion has shed some light on expert and economic sources; in the following section, I discuss the complex issue of activist sources vs. political sources. As evident in Table 5.1, the presence of activist sources was quite low (n=6) in both newspapers' coverage of the Murray-Darling Basin. This warrants further attention to ascertain how they were selected and positioned in various news items. Most importantly, this study did not find any activist source used as a principal source in either of the newspapers. However, activist sources were used in conjunction with other powerful sources, including politicians and experts, to either support or deny the adoption of positions in the articles presented in the two newspapers. In the items previously analysed, it became clear that when economic sources were dominant, the activist (Dr Buchanan) source was quoted along with other experts to bolster the position of the economic source (Cubbie Chairman Keith de Lacy).

5.1.3 Political Sources in the 'Conflict' Frame

Table 5.1 shows a very high visibility of political sources in the articles published by *The Australian* (n=29) compared those published in *The Sydney Morning Herald* (n=6). Principal sources included five politicians in *The Australian* and one in *The Sydney Morning Herald*. The low presence of politicians as principal sources may be explained by what many scholars term 'media attention cycles' (Downs, 1972; Brossard et al., 2004), which remain prevalent in the news production process. According to this notion, when reporting ongoing events or issues, news media focus heavily on conflicts between politicians and other powerful sources,

e.g., experts and business persons. The monitoring period of the study (June-November, 2009) was not politically significant in relation to the Murray-Darling debate, a factor that might explain the minimal presence of politicians as principal sources in the news content examined in this study. Overall, the study found that the Labor Government's water buy-back policy adopted in 2008 was the focus of a range of news and feature items, particularly in *The Australian*.

Table 5.7 Attribution of Responsibility - Political Sources as Principal Sources

Entities	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	2 (40%)	--
Politicians	2 (40%)	--
Climate Issues	1(20%)	1
Total	5	1

Table 5.8 Verification

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	1 (20%)	--
Verified	4 (80%)	1

Based on coverage dominated by politicians as principal sources, *The Australian* argued that the government's lack of efficiency (n=1), and the bickering among state politicians (n=2) who were unwilling to cooperate in the implementation of the government water buy-back scheme, were jointly responsible for the degradation of the Basin (see Table 5.7). In order to further understand the 'attribution of responsibilities', I have selected two items which shed light on the use of sources to argue for government responsibility. One such item relates to the Commonwealth's water buy-back scheme in which it was claimed that the Federal Government had already spent 10 times as much money on the Murray-Darling buy-back than in previous years without any significant benefit to the river systems (**Buyback plan fails Murray Darling**, *The Australian*, 9 July 2009).

The article checked the veracity of the government's alleged lack of efficiency of basin management through the use of four sources, two of which were negative and two positive. On the positive side, an activist and a spokesperson from the Climate Change Ministry were cited in support of the government's continuous action for saving the Basin. However, on the negative side, the principal source—South Australia's independent Senator Nick Xenophon, who was highly critical of the Federal policy—expressed his deep concern over the government's reluctance to take the fight to the states and expedite a \$3.1 billion Murray rescue plan. This well-checked article also included a comment from a member of the Wentworth Group of Concerned Scientists Professor Mike Young who echoed the Senator's viewpoint saying that "progress is still too slow".

The scrutiny of government policy went further in another article titled '**Murray at tipping point**' (*The Australian*, 23 November 2009), which reported direct contestation between the politicians in power and the experts' 'clashing interpretations', thus strengthening the concerns of Senator Xenophon. The main focus of the article was the call made by a group of renowned environmental scientists who, after observing the deteriorating condition of the water level at the lower end of the Murray River, "called for flows to be restored to one third the level of pre-development flows".

Concerned by the rapidly changing ecosystem, environmental scientist Professor Richard Kingsford asked for an additional 725 gigalitres of water to be made available at the mouth of the river systems. However, in the process of verification, the article reported that Climate Change Minister Penny Wong's office directly rejected the 'call' by terming the research 'flawed', adding that it was always easy to make the call but difficult to solve the problem when the fact was that there was insufficient water. This 325-word item explicitly discussed the conflict between the politicians—who always needed to take into consideration the electorate—and the experts who inclined to focus on the broader perspective of environmental sustainability irrespective of its acceptance by the different communities.

My analysis of the three items reveals how *The Australian* cited activists, politicians, and experts while scrutinising the government's Basin policy. This is consistent with the journalistic professional norm of verification and inclusion of diverse viewpoints. *The Sydney Morning Herald's* coverage did not highlight the politicians' positions to the same extent as its national counterpart. However, the newspaper carried a number of opinion pieces which reflected the dire condition of the Basin and were critical to some extent of the Labor Government's buy-back policy. This newspaper published one feature article recommending the Kimberly as an alternative food bowl for Australia, given that accelerating drying conditions in the Murray-Darling basin due to climate change were rendering any prospect of food production minimal.

Since this chapter only deals with source analysis, I did not include these opinion pieces in my analysis. However, the absence of news coverage and the presence of opinion pieces can be explained through *The Sydney Morning Herald's* position on climate change. The news articles in this newspaper argued that the problem in the Murray-Darling lay in the macro-level global warming issue which needed to be addressed using a broad approach such as the introduction of an emissions reduction policy.

5.1.4 Summation

The analysis of the coverage of the Murray-Darling river system has clarified that the process of news production allows journalists to position certain sources in particular ways and to attach prominence to them in preference to others. Overall, the news coverage in both newspapers gave prominence to the viewpoints of experts as a principal source and regarded the activist perspective as an auxiliary source in maintaining vigilance (Carlson & Franklin, 2011, p. 1) in relation to competing interests. However, the extent of vigilance varied between the two newspapers' representations of the coverage of the Murray-Darling river system.

In the process of what might be termed 'critical vigilance', the important factor was the dominance of certain sources and the absence of others. A case in point here is the activist sources, who were mostly used as auxiliaries to support or challenge the government position on different issues. This is not to suggest that only activists were cited as auxiliary sources. My analysis of political and economic sources shows that expert sources were also cited as auxiliary sources in the process of verification. But, the difference between the expert as auxiliary and the activist as auxiliary is that neither newspaper used the activist as a principal source for any article. Thus, it may be inferred that activist sources were only used to establish certain frames preferred by the selected articles in both newspapers. Activists were cited as effective segments of societies given that they both "support and endorse" (Beetham, 1991)—as well as challenge—powerful sources.

In particular, in relation to the environmental sustainability of the Basin, the articles in both newspapers applied a 'legitimacy frame' to convey information about the impact of climatic conditions on the Basin by incorporating the views of experts. While the articles in *The Sydney Morning Herald* accepted the experts' views, underscoring the significance of climate change which was deemed responsible for the Basin's arid condition, the articles in *The Australian* only cautiously accepted the experts' positions on climate change. But, in the

process, they carefully stressed the ‘uncertainty’ of scientific predictions in order to uphold that the drying conditions of the Murray-Darling were due to ‘seasonal variability’ rather than to ‘climate change’. Both newspapers cited farmers as auxiliary sources to support their respective positions regarding climate change. In the process of verification wherein politicians were the principal sources, *The Australian* oriented its critical gaze towards the government’s policy and, using the experts and other political sources (opposition) as auxiliary support, depicted the policy as ‘ineffective’ for addressing the problems. The views concerning ineffective policy were manifested through the contestation of perspectives between these two groups of sources. Thus, political sources as principal sources and experts as auxiliary sources were used in a ‘conflict frame’ that highlighted the dispute between the government and opposition as well as between the government and businesses.

The role of sources in Climate Change reporting

5.2 Introduction

As a follow-up to the previous discussion on the coverage of the Murray-Darling river systems, this section discusses in further detail the news coverage of climate change during the period July to December, 2009. This will provide an insight into how journalists and their sources coexist (Gans, 1979) and shape their coverage of the dire climatic change predictions pertaining to the Murray-Darling Basin. The news coverage of climate change and the Copenhagen summit was heavily dominated by political sources (n=606), followed by experts (n=203), bureaucrats (n=160), business sources (n=105) and activists (n=61). In this section, emphasis is on the analysis of items pertaining to ‘climate change’ and the ‘Copenhagen’ Summit during the above-mentioned six-month period. Particular attention is focused on the use and verification of different statements made by the principal sources in these items.

Table 5.9 Sources Climate Change Australia

Sources	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Political	367 (48.74%)	239 (51.50%)
Bureaucrat	98 (13.01%)	62 (13.36%)
Experts	126 (16.73%)	77 (16.59%)
Activists	33 (4.38%)	28 (6.03%)
Economic/Business	76 (10.09%)	29 (6.25%)
Lay	12 (1.59%)	--
Others	41 (5.44%)	29 (6.25%)
Total	753	464

Table 5.10 Principal Source Climate Change Australia

Sources	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Political	116 (44.78%)	84 (54.54%)
Bureaucrat	37 (14.28%)	15 (9.74%)
Experts	37 (14.28%)	30 (19.48%)
Activists	15 (5.79%)	7 (4.54%)
Economic/Business	40 (15.44%)	12 (7.79%)
Others	14 (5.40%)	6 (3.89%)
Total	259	154

5.2.1 Politicians in the ‘Conflict’ Frame

The study has found that the intensity of the political debate surrounding the Copenhagen Climate Conference resulted in a high presence of political sources in the coverage of both international and national issues related to climate change. As Table 5.10 above shows, the share of politicians as ‘principal’ source was 44.7 per cent (n=116) in *The Australian* and 54.5 per cent (n=84) in *The Sydney Morning Herald*. This section discusses how the political sources were quoted “to provide meaning to an unfolding strip of events” (Gamson & Modigliani, 1987, p. 143) and to what extent quotations of these sources were verified in order to provide “interpretation” (Sreberny & Paterson, 2004; pp. 8-9) of the responsibility for the issues raised in the items.

Table 5.11 Attribution of Responsibility - Political Sources as Principal Sources

Entities	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	25 (21.5%)	11 (13%)
Other State/s	42 (36.2%)	17 (20.2%)
Politicians	33 (28.4%)	52 (61.9%)
Economic Activities	10 (8.6%)	2 2.4%)
Others	6 (5.2%)	2 (2.4%)

Table 5.12 Verifications of Statements: Political Sources as Principal Sources

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	76 (65.5%)	54 (64.3%)
Verified	40 (34.5%)	30 (35.7%)

This international event was particularly significant for Australia given the national political debate surrounding the proposed Emissions Trading Scheme (ETS) which was due to be passed by the Senate prior to this summit. Since climate change was considered to be a unique challenge to global regulations (Eide et al., 2010; Beck, 2009), relevant policy had to be negotiated by the leaders of different countries. To this end, focus in this section is upon

how politicians from both the developed and Third World countries were portrayed in the pages of the two newspapers. Following a close reading of 200 items in which politicians were the principal sources (see Table 6), I decided to analyse the following two typical but detailed items because the outcome of the summit was indicated by a number of powerful international and national leaders.

Late bid to save climate talks - Hopes fade in Copenhagen, rise on the reef

(*The Australian*, 19 December 2009).

Blessed or blamed? A little of both

(*The Sydney Morning Herald*, 19 December 2009).

Both items made extensive reference to political leaders from the US and China. However, in addition, *The Sydney Morning Herald* article also cited different leaders from other nations, including Ethiopia, Bangladesh, Vietnam, the United Kingdom and Denmark. *The Australian* article clearly identified the crux of the issue (Copenhagen Accord) which, it claimed, “fell far short of the decisive action” due to disagreement between the rich nations and China and other developing countries. This interpretation resonated in the speech of US President Barack Obama as the principal source of the above item:

Mitigation, transparency, financing: it is clear formula. At this point, the question is whether we move forward together or split apart, whether we prefer posturing to action (*The Australian*, 19 December 2009).

The above excerpt is significant, particularly the use of the words ‘transparency’ and ‘action’ which the article in *The Australian* considered to be crucial to the signing of a climate deal. In accordance with this deal, the US was demanding that China should agree to “international verification of its pollution fighting efforts”. Without such an arrangement, the US rejected

the possibility of any deal at the Copenhagen Summit. However, China thrust aside the notion of international verification outright on the grounds of its own 'sovereignty'. The article used an anonymous bureaucratic source to provide evidence regarding different aspects of the meetings between the US and China along with other developing nations. This source revealed Premier Wen Jiabao's reluctance to engage in negotiations with US President Barack Obama. According to this source, the reluctance was made clear when China was represented at this high level meeting by a "third ranking official" whose presence the US termed "unhelpful". The inclusion of a bureaucratic source (as an auxiliary source) can be explained in two ways: first, this selection of an unnamed source and the above mentioned phrases enabled the article in *The Australian* to portray China in a certain way that was unproductive for the conference; and, second, even in the 'event driven' items, journalistic inclination to verify various aspects of that event was not prominent (Tuchman, 1978). So, in effect, the journalistic process of verification allowed this article to portray the dispute between the two globally powerful political sources in a manner which was presumably preferred by the newspaper.

This article cited seven sources including a political and an unnamed official source, five direct quotes by US President Barack Obama, and a single indirect quote by Chinese Premier Wen Jiabao. Jiabao said: "China took climate change 'very seriously', but had to consider its development needs". The item did not mention how it obtained the quote from the Chinese leader; but, it was understood that it was obtained either from anonymous sources at the summit or as "information subsidies" (Bell, 1982; Davis, 2002) from the Chinese public relations officials to the news media. The positioning of China from the perspective of unnamed sources may be associated with difficulties in gaining access to sources from China (Leung & Huang, 2007). However, what was illuminating in this item was the way it implicitly held 'other states' (i.e., China) responsible for the failure of the international climate negotiations. This was manifested in the Chinese leader's rejection of the US conditions, and in the labelling of the participation of China by a 'third ranking official' without incorporation of any significant comments or clarification from the Chinese authority in relation to their reluctance to sign a binding climate treaty. From these analyses, it may be deduced that the article played up the conflict theme by attributing the whole issue to a

contestation between the developed western nations led by US President Barack Obama and the developing nations led by Chinese premier Wen Jiabao.

The same-day coverage of the Copenhagen Summit by *The Sydney Morning Herald* article (**Blessed or Blamed? A little of both**, *The Sydney Morning Herald*, 19 December, 2009) portrayed the summit as a symbol of ‘unstoppable momentum’ focused upon addressing global climate change. Similar to *The Australian*, this article also held China responsible for the failure of the negotiations but in combination with the US. In this connection, the article cited the Swedish Environment Minister Andreas Carlgen who directly blamed the US and China for failing to initiate an “attempt to halt dangerous climate change”. As suggested earlier, a significant aspect of the coverage was the inclusion of diverse views which not only reflected the viewpoints of the powerful world political leaders, but also signalled apprehension vis-à-vis climate change negotiations and third world leaders. For example, Bangladesh’s Prime Minister Sheikh Hasina spoke of the consequences of sea level rise to her country. Ethiopia’s Prime Minister Meles Zenawi expressed his ‘frustration’ about the rising numbers of death from famine across Africa. These potential catastrophes were linked to the wealth and wellbeing enjoyed in the developed countries through carbon-intensive development which was “fundamentally unjust”. The portrayal of their ‘concerns’ by various political leaders including Danish and third world politicians resonated in a comment made by Danish Climate Change Minister Connie Hedegaard:

We are all accountable. Not only for what we do but also for what we fail to do (*The Sydney Morning Herald*, 19 December, 2009).

The selection and inclusion of the Danish Minister’s direct quote regarding the prospects of the conference, particularly the phrase ‘all accountable’, could be understood as an attempt to hold politicians from different parts of the world responsible for the Summit’s failure. It can also be argued here that the article in *The Sydney Morning Herald* also played up the conflict between the developed and developing nations by emphasising the ‘concerns’ of the third

world leaders and the ‘frustration’ of the conference hosts (Danish politicians). However, the characterisation of this conflict was different from that of the article in *The Australian* which directly positioned the willingness of the US and the reluctance of China to negotiate a deal. The article in *The Sydney Morning Herald* argued that both China and the US were responsible for engendering the deadlock by emphasising the concerns of the developing countries (G-77) and the apprehension expressed by the Danish leader (Tankard et al., 1991; McCombs, 2005).

In effect, the findings of the above analysis were consistent with the quantitative findings detailed in Table 5.11, which show that *The Australian* attributed responsibility for the global climate change policy failure to China or ‘other countries’ (36.2 per cent) whereas *The Sydney Morning Herald* implied that ‘politicians’ (61.9 per cent) across the globe were responsible. However, it is necessary to exercise caution when generalising about the attribution of responsibility because not all of the articles examined explicitly identified China as ‘other countries’ or ‘politicians’ across the world as responsible. Nevertheless, once having read the items, one cannot avoid drawing this conclusion from the ways in which the quotes were arranged and represented.

In this section, I have examined the contestation among the politicians as the pretext for journalists attributing meaning to the Copenhagen Summit news. The following section looks at the representation of bureaucratic sources, further significant participants in the political process (Ericson et al., 1989). Bureaucratic sources are widely argued to be prevalent in articles concerning key international events (Gitlin, 2003; Lawrence, 2000; Shehata, 2007; Wolfsfeld & Sheaffer, 2006).

5.2.2 Bureaucratic Sources

This section examines how issues of national and international importance dominated by bureaucratic sources were presented in climate change-related coverage. As Table 5.9 shows,

the share of bureaucratic sources in both newspapers was approximately 13 per cent. However, 37 bureaucrats were identified as principal sources in *The Australian* and 15 in *The Sydney Morning Herald* (see Table 5.10). After a close appraisal of 52 articles from both newspapers, I found that overall the coverage was dominated by international bureaucrats, e.g., UN officials and other officials representative of various nations at the Climate Change Summit.

Table 5.13 Attributions of Responsibility- Bureaucratic Sources

Entities	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	8 (25.8%)	1 (7.7%)
Other State/s	14 (45.1%)	2 (15.4%)
Politicians	4 (12.9%)	4 (30.7%)
Economic Activities	4 (12.9%)	3 (23.1%)
Others	1 (3.2%)	3 (23.1%)
Total	31	13

Table 5.14 Verification of Sources by the Two Newspapers

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	21 (65.6%)	8 (61.5%)
Verified	10 (34.4%)	5 (38.4%)

The presence of local bureaucrats was minimal. Only eight articles (out of 52), six in *The Australian* and the two in *The Sydney Morning Herald* cited local bureaucrats. There are several reasons for this: first, bureaucratic sources were not as readily accessible as other sources (see Dimitrova & Stromback, 2009); and, second, since the climate change issue was a hotly-debated political topic, often politicians from the opposition political parties emerged as more enthusiastic information providers particularly in the case of local climate change issues, e.g., the proposed Emissions Trading Scheme.

I have selected two articles (one from each newspaper) on global issues for detailed analysis because of their relevance to examination of climate change at a macro-level. My analyses of these articles provide an understanding of the process in which the newspapers positioned both the national and international bureaucrats “to stage” (Ericson et al., 1991, p. 4) the Copenhagen Summit globally, and coal industry policy locally, under the proposed ETS. In quantitative terms, however, the number of bureaucratic sources—both principal and secondary—were similar in the two newspapers. But, the process of verification of the bureaucratic sources as principal sources, which characterises journalistic knowledge (Kovach & Rosentiel, 2007; Zelizer & Allan, 2011), varied between the two broadsheets.

Climate deal backers ‘like Nazi appeasers

(*The Australian*, 10 December 2009).

Turning up the heat in Copenhagen

(*The Sydney Morning Herald*, 10 December 2009).

Both articles epitomised the reactions of bureaucratic sources from the developing nations in relation to the leaking of the controversial Danish draft on the eve of the Climate Conference. The leaked draft document revealed the goal of limiting global warming by 2°C by the

developing and developed countries, as well as a \$10-billion-a-year climate aid package for the developing countries, but without any specific commitment regarding aid. While the stories described the positions of the developing nations in response to the leaked document, disparities could be observed in how the sources were quoted. The principal source of the article in *The Australian* was the Sudanese negotiator Stanislaus Di-Aping, who termed the draft document a “new form of rich country imperialism designed to divide poor nations and maintain the dominance of the developed world”. According to the article:

Mr. Di-Aping also accused UN Secretary-General Ban Ki-moon, who like Mr. Rudd was involved in the “circle of friends” who were consulted on the plan, of favouring “one global power block” over others and of abandoning his “honest broker role ...” (*The Australian*, 10 December 2009).

By highlighting phrases such as “circle of friends” and “one global power block” in the indirect quote, the article sought to emphasise Di-Aping’s negative attitude towards the western negotiating nations. Nonetheless, in the same report, other bureaucratic sources (i.e., the Tuvalu representative) were also cited, expressing their viewpoints about the potential emissions reduction deal from the positions of their respective countries. China’s chief climate negotiator Su Wei, for example, was not particularly concerned about the commitment to climate aid from developed nations to developing countries. Rather, she held the rich countries directly responsible for making an insignificant commitment to emissions reduction. On the other hand, while Di-Aping expressed his firm determination to stick to the negotiations ‘to the last minutes and seconds’, Papua New Guinea’s special envoy Kevin Conrad anticipated that most of the participating third world countries would walk out unless the rich countries made a specific commitment to climate aid.

This article cited five bureaucratic sources including three from the developing countries, one from Australia, and one from the United Nations. The use of other sources was considered as part of the process of journalistic verification for this article. The trigger for the item was the

Danish Draft which was explained fairly comprehensively in this report. It also incorporated a number of statements from the Danish Ministry of Climate Change and the UN Climate Convention office which rejected any existence of leaked documents but identified these as ‘working papers’. *The Australian* article argued that the ‘activities of underdeveloped nations including the Africans’ were in disarray. This was demonstrated in the above analysis that ‘framed the conflict’ among different representatives of the developing nations.

In the following section, I examine the presence of bureaucratic sources in the above mentioned article in *The Sydney Morning Herald* (“**Turning up the heat in Copenhagen**”). This 1,294-word article, which used six bureaucratic and two political sources, focused on the angry reaction of the third world countries in response to the leaked Danish draft. The items held all of the participating countries of the conference squarely responsible, citing their “short term self-interest”. As in *The Australian*, this article also portrayed how the conference had become disorderly and posed a security challenge to the Danish law enforcement agencies due to the unauthorised circulation of the Danish Draft. However, in addition it highlighted the reasons for the frustration of the developing nations by including more quotations from the participating representatives.

Similarly to the article in *The Australian*, *The Sydney Morning Herald* article also mentioned Di-Aping but with a different quote in which he described the western offers of aid as “not enough to buy us coffins”. His comment was directly refuted by the European Union official Artur Runge-Metzger, who said that “Di-Aping was unaware of all European aid effort in Africa because he lived in New York”. This article also emphasised that differences of opinion did not exist solely in the developing nations: the developed countries also exhibited degrees of difference. A case in point here was the inclusion of comments made by the Australian and Danish Climate Change ministers in relation to the progress of the conference, comments which indicated the different standpoints of these two countries. While the Danish Environment Minister Connie Hedegaard tried to mobilise her third world counterparts by stating that “This is the time to deliver! This is the place to commit! Let’s get it done!”, her Australian counterpart was quoted as saying “the negotiation was ‘difficult’ and language

around it ‘unhelpful’”. So, when the first world politicians viewed the climate negotiations as both ‘deliverable’ and ‘difficult’, the third world representatives pressed their demand for a binding Climate Treaty with ‘fierce urgency’.

Based on the above statements, it would appear that the article in *The Sydney Morning Herald* placed the responsibility for the stalemate in the negotiations on both third world bureaucrats and first world political leaders. This representation of the deadlock in the negotiations also demonstrated how the article framed the conflict between different bureaucratic and political sources from both rich and poor nations. The similarity in the number of bureaucratic sources in both newspapers vis-à-vis the coverage of the leaked Danish draft is particularly crucial. However, in the process of verifying source statements, the newspapers differed from each other in selection as well as in their arrangements of the statements.

By portraying the third world representatives negatively, the article in *The Australian* signaled that it held ‘other nations’ (45.2 per cent) or the G77 responsible for the deadlock at the conference. The article in *The Sydney Morning Herald* attributed responsibility for the failure to the ‘short term self interest’ of the politicians (30.8 per cent), which impinged on the call for ‘fierce urgency’ made by a large number of Island nations (see Table 5.13). These findings regarding the attribution of responsibilities in the two newspapers were quite consistent with the previously discussed attribution of responsibilities in items dominated by political sources.

Both newspapers used political and bureaucratic sources as significant information providers and players in the Climate Change summit in Denmark (see Table 5.10). What is important here is not the use of principal sources as well as other sources in the process of verification, but rather the selection and positioning of quotes from certain sources over others which allowed the two newspapers to ‘provide a reliable version of facts about the issues in the climate change conference’ albeit differently (Swain & Robertson, 1995). While the article in

The Australian depicted the international issue as a polarisation (Neuman et al., 1992; Semetko & Valkenburg, 2000) between the rich developed nations and the poor developing countries, ascribing the stalemate that marred the conference to the developing countries, *The Sydney Morning Herald* also saw it as a matter of contestation between the first and third worlds, a process in which various politicians were equally accountable for the impasse.

As well as political and bureaucratic sources, business sources also contributed to the coverage of climate issues albeit to a lesser extent in international events or issues. This particular type of source was more evident in the coverage of local climate change issues. The following section examines the use of business sources in local coverage.

5.2.3 Business Sources in the ‘Conflict’ Frame

‘Business’ sources were less evident than dominant bureaucratic, political and expert sources. As shown in Table 5.10, the share of business sources as principal source was 15.4 per cent (n= 40) in *The Australian* and 7.8 per cent (n=12) in *The Sydney Morning Herald*. Both newspapers used business sources in the ‘conflict frame’ to stress disagreement between businesses and others (e.g., the government, environmentalists). A close evaluation of 52 articles dominated by business sources revealed that *The Sydney Morning Herald* was more inclined to scrutinise business activities in articles related to climate change policy. In contrast, *The Australian* demonstrated a more negative stance towards government policy and its effect on industries and the common people. Two articles were selected for detailed analysis because they epitomised the contestation between businesses and other sources in the coverage of climate change policy issues in Australia. I start with a case about a global carbon scheme that provides insight into how the two newspapers articulated “business interests” in their respective contents (Ericson et al, 1989, p. 260).

Australian firm linked to PNG’s \$ 100m carbon trading scandal

(*The Sydney Morning Herald*, 4 September 2009).

This two-source article revealed how a carbon trading scheme in Papua New Guinea thwarted Climate Change Minister Penny Wong's plan to garner support for the Global Carbon Trading at the UN conference. Under this scheme, an Australian company called 'Carbon Planet' issued false carbon certificates to a section of landowners "in order to persuade them to sign over the rights to their forests". The article cited an interview with chief executive of the company, Dave Sag, who

admitted yesterday that his PNG partner, Kirk Roberts, had used mocked-up carbon certificates signed up by Mr. Yasasuse as "props" when negotiating with landowners. But he denied media reports in PNG [that] the certificates were stolen or were intended to mislead (*The Sydney Morning Herald*, 4 September 2009).

This well-rounded article also attempted to verify the issue with Climate Change Minister Penny Wong, who declined to comment on the matter. However, in the view of the Wilderness Society's Tim King it was "a tsunami of carbon traders spreading across PNG. Carbon finance and REDD (Reducing Emissions from Deforestation and Degradation) triggered a 'gold rush' mentality". This article tried to convey the gravity of carbon policy-related irregularities by using an activist source. The selection of phrases such as 'a tsunami of carbon traders' and 'gold rush mentality' emphasised the deceptive practice of the company in PNG. Shortly after the publication of this article, *The Australian* also published an article on the issue.

It's a Market, But in Jungle Camouflage

(*The Australian*, 23 October 2009).

This 1,489-word article illustrated the enthusiasm of the financial sector to enter into carbon markets such as REDD. The article incorporated quotes from three business sources who

wanted to join the Carbon market to ‘make a difference’. The article neither included any comment from politicians or government officials about the ‘controversial’ REDD project, nor raised any questions about the controversy surrounding this project. However, it mentioned the ‘mystery’ associated with the carbon credit deal in Carbon Planet without directly alluding to the controversy surrounding this company through any other sources.

From the analysis of the coverage of REDD, it may be suggested that *The Sydney Morning Herald* not only cited more sources, but attempted to verify the issues by using government and activist sources. The uncritical presentation of business sources in the article in *The Australian* confirmed that business sources were not subjected to the same degree of rigorous scrutiny and verification applied to sources from other areas, such as politics and science (see Ericson et al., 1989; Bacon & Nash, 2012).

Table 5.15 Attribution of Responsibility: Business Sources as Principal Sources

Entities	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	19 (47.5%)	5 (41.6%)
Other State/s	3 (7.5%)	1 (8.3%)
Politicians	8 (20%)	3 (25%)
Other Organisations	7 (17.5%)	2 (16.6%)
Others	3 (7.5%)	1 (8.3%)
Total	40	12

Table 5.16 Verification

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	24 (60%)	6 (50%)
Verified	16 (40%)	6 (50%)

This comparative lack of scrutiny can be further exemplified by another article in *The Australian*: Industry says coal here to stay (*The Australian*, 11 November 2009). With reference to industry heads, the article argued that the coal industry would remain the leading energy resource irrespective of the outcome of the Copenhagen Climate Conference. The statements were made by the Chairman of Coal India at Adelaide's Austmine conference and by the President of Chevron Technology Ventures at The Zone conference in Perth. This was an event-based report, a form of report that may not verify statements expressed due to deadline pressures. What is of crucial importance is that the item failed to include any contextual information about the Australian government's plan for the coal industry under the proposed ETS. The absence of both verification and context (Kovach & Rosentiel, 2007) in this article made the coal industry's statement much more indisputable, a fact evident in other articles featured in this publication:

Miners warn of huge ETS job losses

(*The Australian*, 22 September 2009).

Clean coal locked out of funding

(*The Australian*, 17 December 2009).

ETS to wipe off \$14bn off coal

(*The Australian*, 29 September 2009).

However, this is not to say that the business sources were consistently presented without journalistic verification in *The Australian* articles. For example, when issues raised by the industries were dealt with, business source articles were verified by government sources.

Power cuts loom as financing fails

(*The Australian*, 13 July 2009).

Business ups compo claims

(*The Australian*, 15 September 2009).

The use of political sources in these articles demonstrated how *The Australian* highlighted the disagreement between the business and the government sources. In contrast, *The Sydney Morning Herald* coverage, which was dominated by business sources, was mostly critical of the activities of businesses and exposed various actions of the private sector as impacting on climate change-related policies. One example was: **Why is green business decades away? Better ask the business people** (*The Sydney Morning Herald*, 21 November 2009).

However, overall *The Sydney Morning Herald*'s scrutiny of business sources defined the problem as a policy failure by the government (**Green energy scheme a fraud**, *The Sydney Morning Herald*, 23 December 2009), as evident in the above discussion of the REDD case.

Nearly half of the articles (46.2 per cent) dominated by business sources published in these two newspapers held the ‘national government’ responsible, albeit from two different perspectives. The articles in *The Australian*, which received comparatively less verification than those in *The Sydney Morning Herald*, explicitly argued two issues. First, they compared the government’s climate change policy with job losses in Australia; and, second, they suggested that there was uncertainty in the industry in the wake of the government’s proposed emissions reduction scheme. On the other hand, scrutiny of the business sources in *The Sydney Morning Herald* articles questioned the efficacy of the government’s environmental and climate change-related policies. Through the positioning of sources (i.e., business, government and activist) and attribution of responsibilities, the articles in both newspapers invoked a conflict frame that highlighted the disagreement between business and other sources.

5.2.4 Expert Sources in the ‘Legitimacy’ Frame

Overall, it was found that expert sources played a significant role as ‘authorised knowers’ in the coverage of climate change and Copenhagen. Experts were used in a ‘legitimacy frame’ that emphasised the scientific positions on climate change and a certain interpretation of these positions. In quantitative terms, these expert scientific sources, while fewer than the political, were greater than the bureaucratic sources. The overall presence of expert sources was approximately 16 per cent in both newspapers. But, *The Sydney Morning Herald* used more ‘expert sources as principal sources’ (19.48 per cent) than its national counterpart *The Australian* (14.28 per cent) (see Table 5.10).

Table 5.17 Attribution of Responsibility: Experts as Principal Sources

Entities	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	6 (14.3%)	5 (15.6%)
Other State/s	1 (2.4%)	5 (15.6%)
Politicians	12 (28.6%)	7 (21.9%)
Other Reasons	18 (42.8%)	12 (37.5%)
Others	5 (11.9%)	3 (9.4%)
Total	42	32

Table 5.18 Verification

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	19 (45.2%)	21 (65.6%)
Verified	23 (54.7%)	11 (34.4%)

The expert sources, who were extremely beneficial for understanding complex climate change issues, were cited in news content predominantly in two ways: first, in relation to the scientists' investigations of climate change, which often contributed enormously to public knowledge; and, second, they were quoted in response to political statements about climate change, in which the experts provided verification. The following is a close reading of the

news and feature articles which used experts as principal sources. Four articles from two newspapers have been selected, effectively intersecting politics, science and news media. They are indicative of how the articles represented the experts in the coverage of climate change in general, and how the statements of the experts were verified as well as attributed responsibility for the issues raised in the articles. The position of this dominant source as ‘persons of authority’ was used to support or challenge (Ferree et al., 2002; Tankard, 2001, quoted in Nisbet, 2010) various political positions about climate change. Processes using expert sources were examined through two articles from *The Australian*. This facilitated understanding of the process of negotiations between experts and different journalists within the same news organisation. While the topic of one article was a national issue, that of the other was coverage of an international investigation.

Heats on to approve carbon plan

(*The Australian*, 28 September 2009).

This news article scrutinised former PM Kevin Rudd’s call for the Opposition to support his government’s ETS, based on the premise that rising temperatures across South Australia and Victoria showed signs of climate change. The journalist questioned the Prime Minister’s association of rising temperatures with climate change incorporating the viewpoints of Dr Blair Trewin from the National Climate Centre (NCC). The insertion of Dr Trewin’s view as an expert source refuted the PM’s position to some extent.

Heatwaves could not be “definitively” linked to climate change. Any individual heatwave like the one we are having at the moment ... you can't say definitively it is because of climate change. What we can say is as the overall average temperature increases, and there is a clear increase of average temperatures by 0.8°C in the past century, we would expect the frequency of high extremes to increase and frequency of low extremes to decrease (*The Australian*, 28 September 2009).

Although Dr Trewin qualified the Prime Minister's claim concerning the connection between rising heat and climate change by using the term 'definitive', he did not resile from the fact that climate change was happening. The use of the term 'definitive' could also be explained from a science communication perspective, in which the outcome of science was often more 'uncertain' than expected from a commonsense point of view (Nelkin, 2005; Zehr, 2000; Carvalho, 2007; Boykoff, 2008). In this case, it could be argued that this article focused on 'uncertainty' and dramatised the cause of the heatwave by verifying the association between heatwaves and climate change with the former head of the NCC, William Kininmonth. Introduced as a climate change 'sceptic' who disapproved of the CSIRO and the BOM report, Kininmonth opined that the prediction of rising temperature was "not going to come true. These (heatwaves) occur randomly, and I don't see see (sic) any reason they should come any more often" (*The Australian*, 28 September 2009).

Two news items titled **Past decade the warmest since records began in 1850** (*The Sydney Morning Herald*, 9 December 2009) and **Decade shapes up as the warmest ever** (*The Australian*, 9 December 2009) respectively described how the world was gradually turning into a warmer place. As well, they noted that Australia had already had the fifth warmest year across the globe according to a World Meteorological Organisation (WMO) report published on the eve of the Copenhagen Climate Conference.

The Sydney Morning Herald article preferred to highlight the co-director of the Climate Change Research Centre at the University of New South Wales Andy Pitman's statement as its principal source whereas the article in *The Australian* chose Michel Jarraud, secretary general of WMO for the same purpose. The article in *The Australian* also cited Dr Pitman but with lesser emphasis. However, it was not clear how the newspapers obtained in their report the quotes from their main sources. What was clear was the difference in their fundamental positions regarding climate change. The article in *The Sydney Morning Herald* described the context of the study, with which the news report directly associated these 'exceptional heatwaves' with 'climate extremes' across the world. These events included devastating floods, severe droughts, and snowstorms, and contrasting heatwaves/cold periods. The article

in *The Australian* attempted to distance these phenomena from climate change by highlighting La Nina and El Nino as major causes of these extreme weather conditions. The devaluing by *The Australian* was clear given that it positioned climate researcher Dr Pitman's brief statement about climate change at the end of the article. In his statement, Dr Pitman expressed his deep concern over the warming trend of the globe despite low solar activity.

The article positioned and interpreted the sources and findings of the WMO report that clearly exemplified legitimacy frames in news production. These positionings enabled this article to take control of accounts by experts, thus potentially shaping the disposition of the climate change debate at both the public and policy levels (Boykoff, 2008). The comparative contexts discussed above reveal the process by which the articles in both newspapers tended to portray the issue of climate change in a highly polarised fashion, construing the two sides as 'climate-change sceptics' (see also McKnight, 2010; Bacon & Nash, 2012) and climate-change 'sympathetic' respectively.

So far, two particular aspects of news items, i.e., the scientists' informed opinions and their interpretations in the context of various investigative reports on climate change, have been discussed. However, there were situations in which the scientists themselves suddenly became the targets of a systematic campaign, which attempted to discredit their findings and judgements pertaining to climate change. Knowledge of both the experts' and journalists' responses to such situations is helpful when examining the attribution of responsibility in the coverage of what are colloquially called 'smear campaigns'.

Smear campaigns have significant newsworthiness because they revolve around conflict. The two newspapers published a total of 16 items on incidents of illegal email exposure; of these, 10 were published in *The Australian*, and the remainder in *The Sydney Morning Herald*.

In November 2009, the Climate Research Unit (CRU) of the University of East Anglia became involved in an email controversy, when an unidentified individual or group hacked the unit's server and illegally published thousands of emails containing scientists' exchanges regarding climate change research on a Russian website. This exposure clearly strengthened the position of climate sceptics, e.g., the government of Saudi Arabia and compliant non-government organisations including *The Australian* (McKnight, 2010; Manne, 2011) that sought to interpret the debate surrounding the leaked emails as evidence invalidating climate change expertise. This further polarised discussion concerning the matter on the eve of the Copenhagen Climate Summit. My focus here, however, is on how the two newspapers represented this anonymous allegation against the CRU scientists, and to what extent these approaches had the capacity to challenge the experts' expertise.

One of the articles in *The Australian* reported to the effect that:

Following the email leak [came] the resignation of CRU head Phil Jones and the acknowledgment by Intergovernmental Panel of Climate Change (IPCC) head Dr. Rajendra Pachuri (the claims about email leak) “We will certainly go into whole lot then we will take a position on it. We certainly don't want to brush anything under the carpet” (**Hacked climate emails ‘ignored’**, *The Australian*, 5 December 2009).

This article, which provided a clear context for the email leak, commenced with Dr Pachuri's interview with the BBC. Although secondary, the BBC interview did show the level of importance the world media—including the BBC—wanted to attach to the story. Subsequently, this article blamed the Australian local media, such as Fairfax and the Australian Broadcasting Corporation (ABC), for choosing to overlook the issue.

In one article, the executive director of the Institute of Public Affairs, John Roksham, who was quoted as the main source (expert), termed the emails ‘revealing’; but, he chose not to

comment further. Rather, he expressed his concern over the local Australian news media's lackadaisical attitude towards this significant issue, and attributing it to the journalists' 'group think mentality' (Schudson, 2006).

However, this study found that *The Sydney Morning Herald* published a range of articles, both against and in favour of the illegal email leak, which explored expert views on the impact of such unauthorised exposure in the public sphere. As well, the broadsheet acknowledged the degree of the United Nations' displeasure. Among articles were the following:

Climate email mess hits Australia

(The Sydney Morning Herald, 5 December 2009).

UN blames professional hackers

(The Sydney Morning Herald, 8 December 2009).

No cover-up investigation, says head of UN science body

(The Sydney Morning Herald, 10 December 2009).

Climate doomsayers caught out

(The Sydney Morning Herald, 26 November 2009).

In relation to the reporting of the illegal email leak in three of the news articles, this newspaper cited five expert sources from relevant fields including Australian universities, the National Climate Centre (NCC), and the BOM. On its parts, *The Australian* employed only two sources, i.e., the above-mentioned 'expert' from IPA, and a media statement from the head of CRU, Professor Phil Jones. All of the experts interviewed in *The Sydney Morning*

Herald articles concurred with Professor Ove Hoegh-Guldberg, Marine Science researcher at the University of Queensland, who said:

Few out-of-context quotes gained by illegally trawling through electronic garbage did not undermine the huge amount of peer-reviewed scientific data on climate change. I think the denialist movement is desperate, given the overwhelming conclusions of the science, that they'll do anything (**Climate email mess hits Australia**, *The Sydney Morning Herald*, 5 December 2009).

Other articles in this newspaper, which presented the issue in a more grounded manner, questioned the whole security arrangement issue of the cyber world. One of them (**Hackers love the little phish, too**, *The Sydney Morning Herald*, 1 December 2009) argued that the hackers were simply 'information thieves' who tried to steal whatever information they could get hold of irrespective of the size or reputation of the companies. As Paul Ducklin, head of the Asia-Pacific Technology, commented:

... they (the hackers) cherry picked the data they wanted to release at this stage but what happens the next time they release emails that have nothing to do with climate change? (*The Sydney Morning Herald*, 1 December 2009).

The views of the experts clearly showed how differently the selected articles in the two newspapers perceived the issue of email exposure. However, this was hardly surprising. The articles in *The Australian* portrayed the leak as a severe blow to climate change science and attributed the responsibility for 'incorrect data' to the CRU scientists. In the process of verification, which stretched to a number of articles immediately after the illegal publications of the leak, this paper not only cited Professor Phil Jones who argued that the emails were 'taken completely out of context,' but also cited John Roskam, a member of a well-known 'independent public policy think tank' (IPA). Thus, one can clearly see how the selection of particular sources and the exclusion of others can contribute to very different interpretations

of a highly crucial scientific issue by articles in the *Australian*. At the same time, it also raised questions about the adequacy of scrutiny by journalists.

In sum, the above analysis of expert sources through the process of verification reveals how the articles in *The Australian* (a) attempted to ‘challenge’ mainstream climate change science by raising questions about climatic predictions forecast by the WMO, and (b) portrayed the ‘email leak’ as a revelation of the contestation between scientists. This further polarised the debate on climate change on the eve of the Copenhagen conference. However, articles in *The Sydney Morning Herald* also ascribed responsibility to ‘other reasons’ (37.50 per cent). While it mainly accepted the scientific premise of climate change, the newspaper questioned whether the activities of the climate change deniers, in this case the hackers, undermined the Copenhagen Summit. Thus, by interrogating the actions associated with climate change deniers, the articles in *The Sydney Morning Herald* ‘endorsed and supported’ (Suchman, 1995) the mainstream climate change science and its principle of atmospheric carbon dioxide-related warming that was first confirmed in 1896 (Hulme, 2009). As suggested at the beginning of this section, articles in both newspapers invoked the ‘legitimacy frame’ to establish their respective newspapers’ positions—climate-change deniers and sympathisers—mainly using experts and interpretations of their viewpoints.

The above analysis demonstrates how the articles in *The Australian* systematically perpetuated doubt through portrayal of expert sources and verification as well as through interpretation of selected experts’ statements. But, doubt did not always originate in the selection of sources that were sceptical (Antilla, 2005; Boykoff, 2007). Rather, the point here is the degree to which and to what extent the articles in *The Australian* persistently resented the experts’ observations about climate change as an “uncertain puzzle” (Zehr, 2000). This position was clearly expressed in an editorial that explicitly argued ‘science is yet to be convinced’ in relation to climate change. So, it was not simply the selection of sceptical sources, but rather the interpretation of ‘believers’ (scientists) as principal sources that allowed them to promulgate a ‘sceptical position’ in order to delegitimise climate science.

5.2.5 Activists Sources in the ‘Legitimacy’ Frame

As shown in Table 5.2, this study identified approximately five per cent of articles that used activists as a principal source (n=22). This low presence of activist sources reconfirmed the marginalisation of non-dominant agents (Schlesinger, 1990; Cottle, 2002; Lester, 2010) in the mediating process of environmental politics. Although activist sources were numerically insignificant, both newspapers cited these non-dominant sources, to challenge others; e.g., *The Sydney Morning Herald* to directly challenge the industry, and *The Australian* the Federal Government’s position regarding the proposed ETS. Following close reading, I selected two articles to analyse the representation of activist sources on the basis of their dealing with two crucial issues relating to climate change: international climate-aid and the proposed local ETS. Furthermore, in comparison to other articles, these items explicitly highlighted activists as principal sources and their strong convictions about their respective positions.

Table 5.19 Attribution of Responsibility - Activist as Principal Sources

Entities	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
National Government	3 (20%)	1 (14.3%)
Other State/s	6 (40%)	--
Politicians	2 (13.3%)	2 (28.6)
Other Organisation	1 (6.6 %)	2 (28.6)
Others	3 (20%)	2 (28.6%)
Total	15	7

Table 5.20 Verification

	<i>The Australian</i>	<i>The Sydney Morning Herald</i>
Not Verified	8 (53.3%)	4 (57.7%)
Verified	7 (46.6%)	3 (42.8%)

Come in spinner.

(The Sydney Morning Herald, 7 November 2009)

This 2,961-word international investigative article offered a clear picture of how the coal lobbies in the US, China and Australia, and the timber lobby in Brazil, were attempting to garner public support to resist government policies on carbon pricing. This article juxtaposed two types of activists in relation to the then Rudd Government's Climate Change policy: an industry activist and an environmental activist. As suggested above, the article shed light on how a range of industries was trying to squeeze extra financial assistance out of the government. The article stated:

A Herald analysis of government registers of lobbyists reveals about 120 companies potentially affected by climate change laws employ firms with a total of more than 300 lobbyists. The top 20 companies expected to receive the most government assistance under the proposed emission trading scheme employ 28 lobbying firms. Nearly half the lobbyists working for these firms are former politicians, senior government bureaucrats, or political advisers. *(The Sydney Morning Herald, 7 November 2009)*

The issues raised in the article were verified by Paul Toni, a climate campaigner for the environmental group World Wide Foundation (WWF) who opposed the government's pecuniary measures for industries. Toni argued that industries (for example, the aluminum sector) did not require the proposed compensation by the government because they had been performing well. He further added:

We can't credibly go overseas and say that we will reduce emissions [because] in fact we outsource the whole lot to other countries (*The Sydney Morning Herald*, 7 November 2009).

Paul Howes, who represented an industry activist group, and was at that time Federal Secretary of the Australian Workers Union (AWU) and a representative for the Aluminum, Gas and Steel Workers, echoed the industry position. Howes privately told his colleagues "... jobs would be lost without the planet being saved". This article directly held the industry responsible for the delay in legislating the ETS locally. Overall, industries were held responsible for environmental problems in 28.6 per cent of the articles. However, the above article was unable to draw any comment from the relevant executive sources in the industry. Nonetheless, it mentioned its attempt to include industry perspectives from International Power's Australian chief Tony Concannon and TRUenergy chief executive Richard McIndoe; however, both declined to be interviewed.

When journalists attempt to contact relevant authorised and accountable sources, but cannot verify the issue through these accountable sources, what does this mean for the attribution of responsibility, particularly when such responsibility lies with a particular influential group in the community, in this case the business community? This perhaps opens up the use of secondary sources as an important element of analysis. Secondary source material often not only allows journalists to provide a good description that contextualises the issues raised, but also reinforces the fact that business sources do not readily invite traditional journalistic

scrutiny. This may explain the comparative lack of verification of statements in *The Sydney Morning Herald* articles and the slightly improved verification in *The Australian*. The article that appears below used secondary source material extensively to verify the activist sources in *The Australian*.

‘Activist’ sources promoting climate change at the Copenhagen Climate Conference included Leah Wickham, a Fijian Greenpeace activist and delegate at the conference who was quoted in *The Australian* as saying:

Fifty years from now, my children will be raising their own families. It is my hope that they will be able to call our beautiful islands [in Fiji] home. It is my hope that our culture and our identity will never be compromised. I’m on the front line of climate change (**Strange climate of neglect**, *The Australian*, 12 December 2009).

This comment by Wickham invoked an interesting feature transversing third world claims and first world science. The item verified this Greenpeace activist’s claim using the monitoring report of Adelaide-based BOM’s National Tidal Centre:

The tidal centre’s equipment shows that the sea level in Fiji has been rising by 5.3mm a year since the equipment was installed in October 1992. The average annual global rise has been about 3mm in recent years; double that of the 20th century. At that rate the sea level around Fiji will be 47cm higher by the start of next century. It is a safe bet that in 2059, Wickham’s children will still be able to call their beautiful islands home. By then, the sea will probably have risen 26.5cm (*The Australian*, 12 December 2009).

While the four sources in this item did not completely agree with the extent of the sea level rise in Fiji, they did mention the ‘plight of Kiribati’ (an Island nation in the Central Pacific)

which was encountering a severe threat from sea level rise along with an increasing number of ‘king tides’. Nonetheless, one can see how the item finally associated Wickham’s call to save her island nation with a strategy for asking for \$163.5bn climate aid from the western industrialised nations among which Australia was already spending \$150 million. The article then proceeded to raise questions about the justification for spending Australian taxpayers’ money:

How much of that proposed \$US150bn would be likely to be spent usefully? How much of any cash pumped into the developing nations’ climate change kitties would be diverted from other, longer established projects and programs for supporting those countries? And what of the environmental problems palpably caused by islanders: the disposable nappies and drink cans that clog lagoons, the new causeways that destabilise tidal flows around islands, the average in Kiribati of almost six children a family? (*The Australian*, 12 December 2009).

The above were among the serious charges raised against the Pacific Island nations alluded to in this article. However, there was no verification from any relevant authority, nor was there any indication of the context of the sources pertaining to these questions. These qualitative findings regarding verification of sources and attribution of responsibility become more meaningful when one looks at Tables 5.19 and 5.20, which show that 53.3 per cent of articles were not verified. And, *The Australian* attributed responsibility for the issues raised in their item to ‘other countries’ (40 per cent) in articles dominated by activist sources.

The invisibility of the activist sources can be explained in two ways: first, by the lack of activist sources compared to other traditional sources; and, second, as a reflection of journalistic reluctance to verify this type of source; hence, the suppression of them. However, this lack of verification allowed the articles of both newspapers to legitimise certain positions over others. In this case, while the articles in *The Sydney Morning Herald* suggested that private sector activities were obstructing climate change policy, *The Australian* argued that the government was too lenient regarding the plight of developing nations affected by the vagaries of climate.

5.3 Summation: Climate Change

My analysis of the principal sources through a process of verification and attribution of responsibility provides a diverse picture of the journalistic construction of climate change and the Copenhagen Summit. The selection, along with verification of statements from different principal sources, e.g., politicians, bureaucrats, experts, and activists, shows how the journalists used these sources in two distinct frames: conflict and legitimacy.

Overall, my quantitative and qualitative analyses of sources demonstrated that political sources, although the most widely used (Bennett, 2010; Kim & Weaver, 2003; Dimitrova & Stromback, 2009), were the least verified sources. As Table 5.12 and Table 5.14 show, there were similarities in the approximate share of verified and non-verified statements in the two newspapers when principal sources were ‘politicians’ and ‘bureaucrats’. This high presence of non-verified articles can be explained by the characteristics of the coverage, which generally featured event-based reports about the Copenhagen Summit and climate change policy. In such cases, journalists often lack the scope to verify statements due to tight daily deadlines (Tumber, 2010, p. 535; Tuchman, 1978). Lack of verification questions both the veracity of the sources’ statements as well as the journalists’ professional standards. This raises questions about the process through which journalists identify certain organisations and/or the reasons responsible for the environmental conditions referred to in the articles.

The ‘attribution of responsibility’ differed substantially in the two publications. The articles in *The Australian* mainly assigned responsibility for environmental problems to ‘other countries’ by stressing the disagreement between the first and third world leaders in Copenhagen. In similar vein, the articles in *The Sydney Morning Herald* also highlighted the dispute between the leaders but attributed responsibility to ‘politicians’ from both the developing and developed countries. The difference in this attribution of responsibility indicates that while the two newspapers perceived the issue of responsibility in two different

ways, they shared a similar interpretative frame of conflict (Tankard, 2001; Ferree et al., 2002; Nisbet, 2010).

In the articles dominated by other sources, e.g., expert and business sources, both the verification and attribution of responsibility differed significantly between the two newspapers. In the ‘expert’-dominated content, the percentage of verified items was significantly less in *The Sydney Morning Herald* (34.3 per cent) than in *The Australian* (54.8 per cent). This trend was reversed in articles dominated by business sources: *The Sydney Morning Herald* had 50 per cent of articles verified while *The Australian* had 40 per cent verified. This difference raises a question about whether there is a negative correlation between the articles orientation towards climate change and verification. In other words, if the articles (e.g., in *The Sydney Morning Herald*) show a position that is sympathetic to climate change, it accepts the scientific outcomes about climate change and tends not to strictly engage in the journalistic practice of verification. Conversely, articles (e.g., those in *The Australian*), which demonstrate a negative orientation towards climate change, stringently follow the rules of verification in order to challenge climate change science.

The data also indicates a very infrequent but convenient use of activist sources in the coverage of climate change. Articles in *The Sydney Morning Herald* challenged the private sector using activist sources to scrutinise the government and the business sector. *The Australian* used activists to challenge the government’s proposed climate change policy. While the under-representation of activists is obvious, what is more crucial here is the way that the articles in both newspapers amplified their respective positions on climate change policy by citing an activist as an auxiliary source. Such citing functioned as a subsidiary to other mainstream powerful sources such as political and business sources.

Going beyond the statistics for the types of sources and the process of their citations provides an insight into various aspects of the representations of climate change and the Copenhagen news, which had longstanding connotations for climate change, at least from the perspectives

of the Australian news media. Analyses of the sources of the articles in *The Australian* revealed that the characterisation of climate change was quite clear. From a political source perspective, it demonstrated a contestation between the rich and poor countries that were unwilling to commit to emissions reduction. Having agreed with the significance of the climate deal, *The Australian* went against the premise of climate change policy for two main reasons: first, it argued that the introduction of a local climate change policy would be devastating for the economy and would result in ‘job losses’. The development of alternative energy resources (nuclear energy) was its priority; second, it questioned the projection concerning climate change by interpreting the experts’ quotes in a certain way to contest the issues about climate change, both at the political and scientific levels.

Contrary to *The Australian*’s stance, while articles in *The Sydney Morning Herald* framed the political issues surrounding climate change—particularly the Copenhagen Summit—positively, they portrayed the representation as a contest between politicians across the world. However, in relation to local climate change issues, the articles were quite critical of both the government and businesses for the following two reasons: (1) the absence of adequate government scrutiny was rendering various climate change policies ineffective; and, (2) the articles in *The Sydney Morning Herald* argued that various activities of the private sector were hindering the government’s effort to introduce viable climate change policy.

5.4 Conclusions: Australian Newspapers

The two newspapers’ coverage of the Murray-Darling river systems and climate change revealed distinctive patterns, particularly in the use of sources. Both newspapers consistently gave prominence (a) to expert sources when reporting on the micro-level issue of the river system; and, (b) to political sources when reporting on the macro-level issue of climate change. Their coverage of river systems and climate change facilitated understanding of how journalists as key facilitators in the debate gave prominence to one type of source (experts) in the case of a local topic, and to another (politicians and bureaucrats) in the case of a global

topic. This emphasis on different sources may be explained by the fact that in 2009 the Murray-Darling was a non-event in comparison to the event-driven coverage of climate change leading up to the Copenhagen Conference (Dimitrova & Stromback, 2009).

The delineation of the two crucial environmental issues in terms of journalistic content could also be understood through the visibility of certain sources and the invisibility of others, invisibility that operated in both quantitative and qualitative senses. Quantitative invisibility suggests the comparative absence of some sources, e.g., activists, while qualitative invisibility refers to a type of source that is cited expediently despite having a low numerical presence. The articles in two newspapers used experts (more visible) and activists (less visible) sources in a legitimacy frame which emphasised their positive and negative orientations towards environmental policy-related issues. These positions were clearly evident in their coverage of the impact of climate change. Articles in *The Sydney Morning Herald* gave prominence to the experts' observations about climate change in both the river system and climate change news bolstering the broadsheet's positive orientation towards the climate change issue. Conversely, articles in *The Australian* adopted two specific strategies to endorse their negative orientation towards the climate change issue: first, the selection of certain sources (e.g., farmers) to refute evidence of climate change provided by the experts; and, second, the selection of certain quotes and interpretations that enabled the newspaper to raise scepticism about anthropogenic climate change.

My analyses of the political and business dominated sources show that these types of sources were used in a conflict frame that highlighted the contestation between different political sources as well as between business sources and political/activist sources. And, although the articles in both newspapers used a conflict frame, they defined the river systems and climate change issues differently. These contrasting definitions were manifest in their use of different sources in the process of verification of a principal source. From my analysis of business sources (less dominant), it may be inferred that *The Sydney Morning Herald* used activist and expert sources, and *The Australian* used government and activist sources to interrogate the Murray-Darling and climate change policies.

Both publications used less visible sources, i.e., activists, to legitimise their positive and negative orientations towards climate change issues. In this process of legitimisation, the articles in *The Australian* attempted to influence issues in the political field by challenging the political sources, while the articles in *The Sydney Morning Herald* did so by scrutinising the business sources. The articles in *The Australian* tried to influence issues in the political field by using business interests to challenge political sources. The broadsheet explicitly associated the Australian government's proposed climate change policy with potentially negative economic consequences such as job losses in different sectors. In the case of the Murray-Darling coverage, the articles in *The Australian* were more persuasive so that the government procured the Cubbie Station under the federal water buy-back scheme. The above analyses of business, expert and activist sources clearly demonstrate how the articles in this newspaper attempt to perpetuate reservations about climate change by questioning both climate science and relevant public policy. Nonetheless, at times the newspaper hinted that business sources could favour the government's climate change policy, for example, business communities' demand for 'clean coal' and the 'nuclear energy' option to reduce the country's reliance on fossil fuels.

Contrary to the approach pursued by *The Australian*, the articles in *The Sydney Morning Herald* tried to influence climate change policy in particular by adopting a positive approach to the Copenhagen Summit, a critical approach to the government's coal industry compensation policy, and to the possible purchase of Cubbie. By applying both approaches, the articles in this newspaper explicitly exhibited a position sympathetic to the scientific consensus on climate change, in which the issues at stake were the sustainability of the Murray-Darling Basin and climate change rather than the economic imperatives that dominated these issues. This was strongly evident in its depiction of expert sources in both river systems and climate change news. However, this depiction was not always guaranteed. In effect, *The Sydney Morning Herald* was more critical than *The Australian* of the 'alarmist evidence' vis-à-vis the drying-up of the Murray-Darling River which was used as one of the justifications for the introduction of an ETS in the Garnaut Climate Change Review report.

Thus, as suggested previously, it is not only the selection of sources, but also the presentation and interpretation of sources through the process of framing which enable news organisations not only to “simultaneously invoke and apply norms,” but to “define them” (Tuchman, 1978, p.184). This process of defining certain issues, while quite crucial, is to some degree contingent, not predetermined. As a result, and as the above discussion shows, there is deviation in the continuum of the anti- and pro-climate change significations.

Chapter 6

Sources: Bangladeshi newspapers

6.1 Introduction

This chapter describes the journalists' positioning of various sources in the news coverage of river systems and climate change in *The Daily Star* and the *Prothom Alo* during the latter half of 2009. For this purpose, the chapter is divided into two sections: one section deals with river systems and the other with climate change. In both sections, I explore how the journalists make sense of environmental issues through the use of sources. This facilitates examination of any dominant meanings which might emerge from such representations, especially if there are any differences or similarities between the coverage of these issues in the two Bangladeshi broadsheets. As the main focus of the investigation is on the journalists' use of sources in various news and feature articles, it is necessary to explore matters such as the possible significance of the presence of certain sources and the absence of others. To achieve this, I begin with an analysis of various principal sources, e.g., politicians, bureaucrats, activists, experts and citizens. The principal sources (see Table 6.2) were defined earlier as the most influential source/s for a selected item, who made assertions either in support of or against the main theme of the item. My analysis of these sources shed light on the complexities of the coverage of river systems, particularly the Ganges-Brahmaputra system as a micro-level case of environmental issues, and climate change as a macro-level global environmental threat. In addition, my analysis of the use of sources clarifies the contestation between various sources in the news content. The following section discusses the role of various sources in the coverage of the Ganges-Brahmaputra river system, which flows in four tributaries surrounding the capital city of Dhaka: the Buriganga, Dhaleshari, Turag and Shitalakya.

6.2 The Roles of Sources in River Systems Reporting

Altogether, four categories were identified that included all direct and indirect quotes in the selected news and feature articles, i.e., quotations from politicians, bureaucrats, alleged perpetrators of environmental problems, and activists from non-government organisations. The quantitative overview revealed that the bureaucrats in different departments were the dominant sources in news about river systems (see Table 6.1). This was consistent with the findings of a previous study on environmental news in Bangladesh (Das et al., 2009). The news coverage of the Ganges-Brahmaputra river system was heavily dominated by bureaucratic sources (n=79). Followed by activist (n=61), political (n=38) and citizen (n=35) sources (see Table 6.1). In order to conduct further analysis of the use of sources, this study separately identified the principal sources that provided crucial information for the articles (see Table 6.2). I categorised the principal sources separately after I found that the attribution of responsibility in the coverage of river systems—and the extent of verification—differed across the four categories of principal sources. Based on these separate identifications of ‘responsibility’ and ‘verification’, various principal sources are discussed separately in order to obtain a complex description and deeper understanding of the use of various protagonists in the selected news content. To this end, the subsequent sections analyse a series of news articles which exemplify the presence or absence of different sources.

Table 6.1 Sources River Systems Bangladesh

Sources	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Political	18 (12.42%)	20 (20.83%)
Bureaucrat	58 (40%)	21 (21.87%)
Activists	41 (11.72%)	20 (9.37%)
Citizen	18 (4.2%)	17 (12.5%)
Others	10 (6.8%)	18 (18.75%)
Total	145	241

Table 6.2 Principal Source River System Bangladesh

Principal Sources	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Govt/Political	6 (7.5%)	10 (18.86%)
Bureaucrat	21 (26.25%)	13 (24.52%)
Activists	12 (15%)	7 (13.20%)
Citizen	14 (17.5%)	13 (24.52%)
Other	27 (33.75%)	10 (18.86%)
Total	80	53

6.2.1 Political Sources in the ‘Legitimacy’ Frame

Political sources as an ‘authoritative’ voice were used in a legitimacy frame that designated certain positions as desirable and appropriate in a ‘socially constructed system of norms and values’ (Suchman, 1995; Dimitrova & Stromback, 2009). The ratio of politicians as a principal source (n=16) was approximately 19 per cent in the *Prothom Alo* and eight per cent in *The Daily Star*. Importantly, the only article that was verified was the one in *The Daily Star*.

Table 6.3 Attribution of Responsibility - Political Sources as Principal Sources

Responsible Entity	<i>The Daily Star</i>	<i>The Prothom Alo</i>
National Government	2 (33.3%)	1 (11.1%)
Eco Exploitation	2 (33.3%)	6 (66.7%)
Others	2 (33.3%)	2 (22.2%)
Total	6	9

Table 6.4 Verification

	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Not Verified	5 (83.34%)	9
Verified	1 (16.66%)	-

In comparative terms, ‘political’ sources were highly visible during 2009 when a newly-elected government in Bangladesh replaced a bureaucratic interim caretaker administration, which had temporarily ‘banned’ all political activities in 2007, a period during which news articles for the previous investigation (Das et al., 2009) had been published.

In effect, the articles on river systems depicted river pollution as a grave environmental concern, and highlighted the ‘pledges’ made by the ruling party politicians including the Prime Minister. These ‘pledges’ which were considered to be important news, were most probably triggered by three causes: (1) the ruling centre-left government led by the Awami League was newly elected and regarded as having strong public support. Thus, statements by the leaders of the popular government were important news; (2) during the study period, a fortnight-long media campaign titled “*Save the Rivers, Save Dhaka*” was launched by *The Daily Star* and private television station *Channel I* to create awareness of the severe pollution of the rivers in and around Dhaka; and, (3) World Environment Day, which was observed on 5 June by different public and civil society organisations, showed a renewed commitment to protection of the environment. These factors triggered the above-mentioned ‘pledges’ and made them important news.

Around this time, the news coverage mainly focused on event-oriented articles, which highlighted the politicians’ speeches about protecting rivers to demonstrate the significance of river pollution, and actively sought government action to ‘resolve’ the problems surrounding river systems. Following a close reading of all 15 news articles dominated by the ruling party politicians as sources, three articles were selected for close examination because they clearly spelled out the concerns regarding the river systems.

Prime minister announced the commencement of a huge project to save the rivers

(*Prothom Alo*, 2 June 2009, front page).

Lawmakers pledge to save rivers

(*The Daily Star*, 2 June 2009, front page).

PM pledges to evict all river grabbers

(*The Daily Star*, 6 June 2009, front page).

As their headlines suggest, all three articles highlighted the politicians' determination to resolve the problems of river pollution, the indiscriminate dumping of industrial effluents, earth filling, and the construction of structures along the river banks as a means of grabbing land. Concern about the endangered ecological health of the rivers also gained currency when politicians were cited as assigning responsibility for the degradation of the rivers to 'economic exploitation' of natural resources (such as water pollution by the industries; see Table 6.3). In the second article (*The Daily Star*, 2 June), the Agriculture Minister Motia Chowdhury directly blamed 'influential business people' for 'stand(ing) in the way of restoring the health of the water bodies'. Within a few days, Prime Minister Sheikh Hasina's speech on World Environment Day in which she made a strong promise to evict those who encroached on rivers irrespective of their positions and influence, was used extensively by both newspapers.

I want to declare unequivocally that whoever the encroachers are, however powerful they are, they will be evicted (*The Daily Star*, 6 June 2009).

From the above excerpts as well as the headlines, it is clear that the news articles portrayed the politicians' good intentions and commitment to save the rivers. But, despite this portrayal of the politicians, the use of the words 'powerful' by the Prime Minister and 'influential' by the Agriculture Minister, revealed an underlying tension between the industries and the government. The statement about safeguarding the river systems made by the top political leaders of the country also exposed the limitations of government mechanisms, a subject I discuss in the following section dealing with bureaucratic sources. The constraints on protecting rivers were further revealed in another article published in the *Prothom Alo* titled **Prime Minister meets secretaries: stern actions against water body occupiers** (*Prothom Alo*, 19 October 2009).

In fact, four months after the Prime Minister's pledge to 'save the rivers', the *Prothom Alo* published the above article about a high level meeting attended by 40 top ranking secretaries or heads of government departments. The article showed that the Prime Minister had virtually repeated the same message about the recovery of illegally-occupied water bodies albeit to a

different audience: the bureaucrats, the highest ranking government officials of the country. The fact that was only published in the *Prothom Alo* suggests that this newspaper was slightly more inclined to notice the follow-up developments on political promises (in this case, the protection of the rivers).

While the visibility of political sources was evident, the reasons for the degradation of river health and the people responsible for it were not explicitly evident in the coverage. In fact, the articles mentioned ‘influential people’ without any further explanation or specific reference. Most importantly, the Prime Minister’s speech did not even directly offer any clues regarding the identity of the wrongdoers or perpetrators. She simply said that ‘industries’ were dumping untreated effluent in the rivers.

One important aspect was the paucity of alleged ‘wrong-doers’ or ‘perpetrators’ of river ills as sources in articles dominated by political sources. The invisibility of the ‘wrong-doers’ or ‘perpetrator’ sources can be explained by the lack of verification of these articles (see Table 6.4), in which journalists simply reproduced the politicians’ accusations without verification in order to find support for a pollution-free healthy river. This tactic is what Ekstrom and co-authors term the “close degree of co-ordination” between journalists and politicians (Ekstrom et al., 2010, p. 258). In other words, the absence of perpetrator sources rendered the validity of the dominant presence of political sources questionable and for this reason ‘the reality of river issues’ was left relatively unexplored (Tuchman, 1978; Schudson, 2007).

However, caution needs to be exercised when making such an assertion because the news articles under scrutiny were mainly daily routine coverage, which usually contains verifiable statements but allows little scope for the journalists to actually verify the claims. Although it is theoretically plausible to crosscheck every statement in the news, it is almost impossible in practical terms due to deadline pressures and other reasons (Tuchman, 1978). This implausibility enabled the journalists to frame highly influential political sources to endorse their own anti-pollution position. The following section will shed light on the unexplained issue of ‘economic exploitation’, using bureaucrats as the most visible type of source

(Ericson et al., 1989). This will help me to ascertain whether bureaucratic sources were cited to enhance the image of the public organisation they work for or to question it.

6.2.2 Bureaucratic Sources in the ‘Conflict’ Frame

As suggested earlier, the high presence of bureaucratic sources (32.8 per cent) was evident in the coverage of the Ganges-Brahmaputra river systems compared to their political counterparts. They were cited in a conflict frame in two predominant ways: first, as authoritative sources and significant suppliers of raw materials for news (Ericson et al., 1989), validating the position of their political superiors by providing various facts about the administrative drive to evict ‘illegal occupants’ of lands on the river banks surrounding Dhaka; and, second, as leakers of crucial information about the stalemate in the ongoing eviction drives due to legal complications. This was quite explicit in the *Prothom Alo*’s coverage.

Table 6.5 Attribution of Responsibility - Bureaucrats as Principal Sources

Responsible Entity	<i>The Daily Star</i>	<i>The Prothom Alo</i>
National Government	11 (50%)	1 (7.7%)
Eco Exploitation	11 (50%)	11 (84.6%)
Politicians	0 (00%)	1 (7.7%)
Total	22	13

Table 6.6 Verifications of Statements: Bureaucratic Sources as Principal Sources

	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Not Verified	15 (71.4%)	3 (23.1%)
Verified	6 (28.6%)	10 (76.9%)

These articles identified ‘economic exploitation’ as responsible for the degradation of this river system. However, *The Daily Star* placed less emphasis on ‘economic exploitation’ and focused more on the ‘national government’, which was entrusted with the responsibility of addressing the river issues. In assigning responsibility to ‘economic exploitation,’ the *Prothom Alo* verified statements made by bureaucratic sources by incorporating the so-called ‘perpetrator’ (citizen) sources or individuals and businesses allegedly responsible for the various ills of the rivers. The newspaper also clearly identified its sources by revealing their names or identifying their businesses. On the other hand, *The Daily Star*, when describing the eviction drives against illegal occupants or structures on the riverbanks, mostly cited bureaucratic sources.

The highly visible bureaucratic sources (both named and unnamed) emphasised the endemic nature of the problem of encroachment on the riverbanks and the construction of illegal structures obstructing the rivers’ natural flow. It may be that the use of unnamed sources possibly demonstrated the high degree of ‘public interest’ (Carlson, 2011) in the degradation of rivers that allowed the journalists to pursue other sources as a means of challenging the versions put forward by official sources. Two articles have been selected that encapsulate the complexities of the issues surrounding the degradation of rivers, which could be considered as a microcosm of the environmental problems that threaten this delta land. Examination of

these articles will shed light on the contestation and counter-contestation among various sources including bureaucrats, citizens, alleged ‘perpetrators’, victims of river pollution, and activists working to mitigate the degradation of the country’s rivers.

59 illegal occupiers allowed to stay at Kanchpur, eviction stopped

(Prothom Alo, 8 July 2009, front page).

This 469-word article highlighted the inefficacy of the government department decision to halt an eviction drive on the Shitalakkhya River, one of the tributaries of the Ganges–Brahmaputra river system. The drive was launched a month earlier (i.e., in June 2009) as part of the implementation of the politicians’ pledge to save the rivers surrounding Dhaka. The article explained that the decision to stop the drive left 10 acres of land unrecovered from illegal occupiers, who had earth-filled it causing serious obstruction to the natural flow of the river. Local district administration and Bangladesh Inland Water Transport Authority (BIWTA) sources said that the perpetrators (sand and stone quarry traders) were given licences on the condition that they conducted their activities according to the instructions of the authorities. The traders disregarded the instructions and illegally earth-filled adjoining wetlands, endangering the course of the rivers. As a result of this breach of the conditions, their licenses were cancelled. However, despite this cancellation, the traders continued their activities creating a situation that proved impossible to address. In the words of BIWTA Director Md. Mahbubul Alam:

The authorities have stopped the drive because of inadequate resources and technical instrument ... We’ve already issued notice to them to leave the banks. However, they’ve not yet stopped. Now we are trying to hire a private company who would evict them in exchange of the permission for extracting the illegally filled earth
(Prothom Alo, 8 July 2009).

The article provided a list of names of the illegal occupiers including some textile and paper mills. Quoting a mill employee named Aminur Rahman, the article claimed that some of the occupiers had erected fences to protect the area from other potential occupiers. This

investigative spot report offered a vivid description of the random construction of structures along the Shitalakkhya River. The source statements were verified by both the BIWTA officials and ‘perpetrators’ (citizen) sources including the above mentioned employee Aminur. The verification also revealed the involvement of a local opposition Member of Parliament (the Bangladesh Nationalist Party) who had also built a brickfield but was later evicted. In general, the statements made by official sources were verified to a greater extent in the Bangla daily than in the English language newspaper (see Table 6.6).

The Daily Star’s emphasis on an uncritical and positive representation of government actions may have been associated with the newspaper’s stake in the ‘Save the Rivers’ campaign (Das, 2012), a project it wanted to succeed. Hence its decision not to raise vital questions about various government initiatives—including the eviction drive—so that they would not be jeopardised. However, within a short space of time, the newspaper supported the *Prothom Alo*’s proposition that the ‘ruling politicians’ were also part of the problem.

In the second week of July, an article in *The Daily Star* directly claimed that the ruling Awami League activists were involved in the indiscriminate lifting of sand, an action which threatened to change the course of the rivers (**Rules defied in sand lifting near Buriganga bank**, *The Daily Star*, 13 July 2009). This article included five sources and revealed the subtle tension between the bureaucrats and the politicians. However, the article did not identify the ruling party activists by including the names of their businesses or attempting to speak to them. It did, however, claim that they were breaching the rules of sand lifting.

The law enforcers said they could not intervene into the matter despite their full knowledge that it was an illegal act. “We know who these people are but we are unable to stop them until instructions come from the top officials,” said ASI [Assistant Sub-Inspector of police] Habib. “You better keep away from them,” he told this correspondent and our photographer (*The Daily Star*, 13 July 2009).

From the above comment, it becomes clear why the ‘perpetrators’ from the ruling party were not identified in the article. However, it could also be inferred that the law enforcing agency

may not have wanted the newspaper to reveal further details about this illegal extraction because it could influence coverage and, as a result, protect the politicians. According to one local resident, who along with others demonstrated against the illegal sand extraction:

The same group of people started extracting sand last year and vanished after making several crore [one crore =10 million] taka within a very short period of time at the cost of our land and the river. He alleged that the police, BIWTA officials and local Awami League activists were directly involved in this illegal activity (*The Daily Star*, 13 July 2009).

Although this report did not include any statements from the alleged perpetrators, it incorporated victim (citizen) sources in conjunction with official sources who revealed a possible association between the ruling politicians and the bureaucrats. It also demonstrated the complexity of the coverage in which the journalists attempted to pinpoint two underlying dimensions of the river issues: first, the tension between the bureaucrats and politicians, and second, the mistrust between the bureaucrats and the locals residents who had witnessed the unlawful activities of the encroachers.

One can also see how the highly visible bureaucratic sources were challenged by the comparatively less visible lay sources through the selection and verification of different statements. This also provided a basis for the argument about who was responsible for the degradation of the rivers, the ruling and other politicians, or the economic exploitation which was endemic across the country and was yet to be brought under the control of the national government.

The newspapers adopted different approaches to the issue of the eviction drive. As Table 6.6 shows, the English daily published fewer verified articles, which was consistent with its less critical or more positive coverage of the government's eviction drive. However, as suggested earlier, one can also argue that since *The Daily Star* was the initiator of the 'Save the Rivers' campaign, it had a high stake in said campaign and wanted to see it succeed. However, the later shift in approach to its coverage is clear from the above analysis. On the other hand, the

Prothom Alo adopted a continuously adversarial approach both to the politicians' pledges and the officials' actions to protect the rivers. The above analysis thus exposes the intricacies of the reporting of the river systems in which the journalists disputed the official sources' claims by incorporating a number of citizen sources including both 'perpetrators' and victims. One can also see how the newspaper used certain conflict frames in which the journalists initiated the item and thus controlled the visibility of the bureaucratic sources.

In this section, I have discussed how the citizen sources were used to dispute information provided by the bureaucratic sources. In the following section, focus is upon citizens as a less dominant source in the coverage.

6.2.3 Citizen Sources in the 'Conflict' Frame

So far, it has been found (a) that the political sources were persistent in their rhetoric about their commitment to save the rivers; and (b) that the official sources were active in implementing the politicians' will. However, citizen sources who had witnessed the exploitation of the river system offered a clear picture about the unrelenting degradation of the water bodies surrounding Dhaka. During the monitoring period, I noted that the journalists used some citizen sources as 'victims' of the degradation of the rivers and others as 'perpetrators' responsible for endangering the water ecology. The share of citizens as principal sources was 17.5 per cent (n=14) in *The Daily Star* and 24.5 per cent (n=13) in the *Prothom Alo* (see Table 6.2). However, a significant number of articles (n=18) were excluded because they were either news agency articles or originated from press releases. After these articles were excluded, the presence of citizens as principal sources appeared quite small in number compared to other principal sources (four in the *Prothom Alo* and five in *The Daily Star*). In the following section, I discuss the characteristics of these sources in the coverage of the river systems. This will enable identification of the journalistic strategies employed to deal with the insignificant number of sources.

6.2.4 Citizen Sources as Victims/Perpetrators

While the *Prothom Alo* cited citizen sources as participating in the illegal activities on the riverbanks and at the same time as victims of it, *The Daily Star* predominantly used lay sources as victims of the perpetrators' wrongdoing. In line with previous bureaucratic assertions about the intractable sand lifting, one article (**Sand lifters back in rivers, Defy water authorities suspension on work order**, *The Daily Star*, 9 August 2009, front page) commenced by citing a disgruntled local resident, who protested against the 'powerful dredgers'. Although the article did not hold any particular organisation responsible for failing to monitor the circumstances surrounding the river, it incorporated an interview with the BIWTA chairman Md. Abdul Mannan Howlader who claimed to have 'no clue' about the ongoing extraction of sand. He said: "You better inform the law enforcement agencies of the matter", despite the fact that another high-ranking anonymous dredging official from the same department confirmed that the locals were afraid that the "riverbed might even change the natural course of the river" (*The Daily Star*, 9 August 2009).

Table 6.7 Attribution of Responsibility - Citizen Sources as Principal Sources

Responsible Entity	<i>The Daily Star</i>	<i>The Prothom Alo</i>
National Government	1(25%)	2 (40%)
Eco Exploitation	3 (75%)	3 (60%)
Total	4	5

Table 6.8 Verifications of Statements - Citizen Sources as Principal Sources

	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Not Verified	3 (75%)	2 (40%)
Verified	1 (25%)	3 (60%)

Although the article clearly identified one of the perpetrators as the Ali Associates, it did not include any statement from them in relation to the BIWTA position regarding the prohibition on sand lifting. This not only reveals the potential reasons behind the ongoing sand lifting, but also sheds light on the contesting positions within the water transport authority.

Awami League leaders prevented Shittalakkhya eviction drive

(Prothom Alo, 10 July 2009).

This 513-word article used six sources including four citizens. Of these, three citizen sources were the alleged ‘perpetrators’ who were cited in both anonymous and identified forms. Of the others, two sources were from the BIWTA and one from the law enforcement agency (police). With reference to a local resident who preferred not to be identified, the item offered a striking description of the failure of both the BIWTA and the police to free the banks of the Shittalakkha from encroachment due to a protest by the ruling Awami League leaders and activists. It revealed that the ruling party activist ‘threatened’ the authorities who were in charge of monitoring the banks. When asked by a journalist about this incident, Sub-Inspector of Police Nazmul Haq denied any ‘threat’ from the local ruling party activist; but, he acknowledged that “there was commotion, that’s why I was compelled to halt the drive and leave the place”.

The article did not cite any officials or leaders from the ruling party. However, the reporter managed to speak with a local resident, Nur Hossain, who identified himself as a ruling party activist and detailed his justification for the encroachment on the adjacent areas of the water bodies:

I was sued by my political opponents under the previous regime. That's why I was forced to be fugitive. Now I'm back to do some business and also give some opportunity to my fellow party members [of the ruling Awami League]. What's wrong with that? (*Prothom Alo*, 10 July 2009).

The above excerpt clearly shows how the report used citizen sources as a strategy to dispute the official version of reality by revealing a possible association between the ruling party activists and the concerned bureaucratic sources. It also described the degree to which the practice of illegal occupation and the excavation of river banks for sand and stone extraction was prevalent during the previous regime and has continued unabated under the current regime. An anonymous local resident said: "We pay two lakh taka as monthly rent to the Awami League leaders" who had illegal possession of the riverbanks and rented the lands to various stone and sand traders.

From the above analysis, it may be inferred that the two newspapers adopted two different approaches when using citizen sources. While the *Prothom Alo* very actively identified citizen sources as 'perpetrators', and demonstrated the river issue through an adversarial approach to the authorities, *The Daily Star* tended to see citizen sources (e.g., local residents) as victims of the 'perpetrators'. In portraying the tension between citizen and official sources, the *Prothom Alo* held the politicians, along with the national government, directly responsible whereas *The Daily Star* referred to the 'economic exploitation' of natural resources. It may thus be deduced that while the *Prothom Alo* maintained a more adversarial approach to the ruling party by pointing a finger at the wrongdoings of its local members, *The Daily Star*, although alluding to the involvement of ruling party activists, preferred to maintain a more symbiotic relationship with the government by choosing not to vigorously verify the allegations made against it. As suggested earlier, the presence of citizen sources was

numerically relatively insignificant; but, they were predominantly positioned to challenge official sources (a fact I discussed earlier). The verification of assertions made by citizen sources indicated how the journalists strategically attempted to portray the contestation between the authorities and local community by making generally invisible sources (citizens) more visible through the journalistic process of crosschecking.

6.2.5 Activists in the ‘Legitimacy’ Frame

Articles dominated by environmental activist sources in the *Prothom Alo* (n=7) and *The Daily Star* (n=12) appeared mainly to cover two types of events. First, seminars and public rallies that aimed at protecting the rivers. Here, the articles argued for stern measures against the ‘perpetrators’, and for protection of the water bodies surrounding Dhaka. Second, some activist organisations, for example the Bangladesh Environmental Lawyers Association, filed writ petitions with the High Court asking for a speedy review of illegal dumping of effluent in the rivers. Speakers at seminars and rallies called for the relevant government departments to be more vigilant in protecting the ecological health of the rivers. These articles, which were dominated by activists, mainly assigned the responsibility for the pollution and encroachment of the rivers to the ‘government’ and ‘economic exploitation’. The source statements in most of the articles were not verified, as they were event-based articles.

Although the assertions made by the activists were not verified, the sheer volume of these articles compared to other articles dominated by influential sources, e.g, politicians and bureaucrats, indicated the significance of the news media’s emphasis on these river-related issues. In particular, the special coverage by the English daily of the physical and biological health of the rivers encircling the capital (**Sincerity the answer**, *The Daily Star*, 5 June 2009, front page) demonstrated how experts-turned-activists raised questions concerning perceived inadequate government action against the encroachers. Saber Hossain, a member of the Parliamentary Standing Committee for the Environment Ministry, observed that “The existing laws to safeguard the rivers are not any help, as they are weak and flawed”.

In fact, this was the only activist-dominated article in which a politician's position was incorporated in response to the activists' calls. From this single verified article, one can deduce how the journalist in the English daily attempted to validate the rivers issues by presenting the viewpoints of both activists and politicians. This is quite consistent with the findings of a previous study (Das et al., 2009). On the other hand, the Bangla newspaper only presented the events, including the reporting of different activist organisations, without any verification of their statements. The differences in the coverage of activist-dominated articles may be explained by the fact that *The Daily Star* relied more on activist sources, aligning itself with them to make their 'Save the Rivers' campaign a success.

Overall, the coverage in both newspapers showcased the environmental activists as the claim makers for river issues as they enjoyed a remarkable degree of visibility which legitimised their concerns about the degradation of the rivers. However, some of the activist organisations tended to go beyond the garnering of public support to seek real action against the 'perpetrators'. Below are two examples:

Shut tanneries at Hazaribagh by Feb next

(*The Daily Star*, June 24 2009, front page).

High court verdict: Installation of treatment plant within a year

(*Prothom Alo*, 24 June 2009, front page).

Both of these articles appeared on the front page with colour photographs of blood red water coming out of the tanneries located at Hajaribag on the bank of the Buriganga in Dhaka. The lawyers for the activist organization, i.e., the Bangladesh Environmental Lawyers Association (BELA), stated in court that "there are still 478 industries and 183 tanneries that are causing serious pollution in the capital and that [some] measures should be taken against those industries as per laws". In response to the association's writ petition, the High Court ordered all of the tanneries in Hazaribag to be shut within a year.

Similarly, both newspapers published another directive from the High Court on the construction of illegal structures and earth filling on the banks of the rivers Turag and Buriganga in response to a writ petition filed by the Human Rights and Peace for Bangladesh. The High Court directed the ‘high up authorities’ to visit the encroached areas, and to stop the construction of illegal structures on the rivers. In neither article did the journalists speak to any relevant government department about their strategies to implement the court directives. But, they implicitly emphasised the inefficacy of the directives stating that “despite several similar directives” (*The Daily Star*, 24 June 2009) the earth filling on the riverbanks had continued.

From the above analysis, it may be inferred that various activist organisations were competing for visibility in the news media as claim makers for river issues (Hansen, 1991; Waisbord & Peruzzotti, 2009). Their representations of these claim-making activities allowed the news media to demonstrate how these activist organisations were conforming to the recognised principles of environmental sustainability and thus legitimised the two newspapers’ concerns about the severe degradation of the rivers. Representation of these claims, which were mostly unverified, could raise questions about the critical capacity of journalists to scrutinise different claims. However, it needs to be recognised that issues emerging from the courts tend always to be considered “easy to construe as newsworthy” (Ericson et al., 1989, p.73) given that the activist organisation had already presented adequate evidence against the industrial polluters in court. The two articles relating to the High Court orders against the tanneries were presented on the front page with images, showing the journalists’ strategies to re-affirm the significance of the pollution caused by economic exploitation of natural resources.

6.2.6 Summation

According to Franklin et al. (2010), coverage of river systems provides an opportunity to see how and who gets ‘on’ or ‘in’ in the news. It is interesting to see the use of various sources in the production of news. The above analysis makes clear that both the least and most dominant

sources (citizens and bureaucrats respectively) were used in a conflict frame. The most crucial aspect of the coverage is the way in which—and the degree to which—citizen sources as victims as well as perpetrators are cited to challenge the ‘definitional power’ of the bureaucratic and political sources. Although the citizens as principal sources are numerically quite insignificant, the way they were positioned to dispute the official versions of river degradation made them symbolically more powerful and visible compared to the other sources.

Journalists used ‘political’ and ‘activist’ sources primarily in a legitimacy frame that strongly endorsed the issues surrounding the river systems through political speeches and legal action. When the issues are examined from a verification point of view, it may be suggested that while politicians and activists are quite visible in the representation of the river systems, in general they are not verified as often; and, in some instances, they are not verified at all. This raises the question of journalistic authenticity. However, as mentioned earlier, some politicians and activists were cited in event-based articles among other sources, a situation in which verification is not possible due to deadline constraints in the newsrooms. It may be that deadline restrictions allow journalists to exercise their ‘unwitting prejudices’ and leave some crucial issues unaddressed. This could see thorough scrutiny of the involvement of the local ruling party politicians and the roles of various government officials in activities related to the encroachment and pollution of water bodies left unverified.

The preceding analyses of the coverage of river systems underscore the values of examining both dominant and peripheral sources, a process instrumental in understanding the power of influential sources. It also reveals the use of the response to these authoritative sources from marginal sources for understanding the news media’s representation of the dispute between the ruling elites and the civil society organisations, in particular, in the peculiar or unique Bangladeshi context.

6.3 Climate Change

In the previous section, the newspapers' coverage of river systems as a local environmental risk has facilitated understanding of the journalistic strategies employed to verify and attribute responsibility for Bangladesh's deteriorating water ecology. Similarly, the use of sources when reporting on climate change, which is positioned at the intersection between the local and the global, can provide a larger picture of the newspapers' responses to this complex environmental issue.

Table 6.9 Sources Climate Change Bangladesh

Sources	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Political	89 (42.99%)	102 (40.16%)
Bureaucrat	46 (22.22%)	52 (20.47%)
Experts	28 (13.52%)	45 (17.71%)
Activists	22 (10.63%)	19 (7.48%)
Perp/business	4 (1.93%)	8 (3.15%)
Lay	5 (2.41%)	11 (4.33%)
Others	13 (6.28%)	17 (6.69%)
Total	207	254

Table 6.10 Principal Source Climate Change Bangladesh

Principal Sources	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Govt/Political	41 (49.39%)	60 (43.16%)
Bureaucrat	16 (19.27%)	13 (9.35%)
Experts	13 (15.66%)	15 (10.79%)
Local/Business	2 (2.40%)	3 (2.15%)
NGO/Citizen	8 (9.63%)	16 (11.51%)
Others	3 (3.61%)	32 (23.02%)
Total	83	139

In this section, I present an analysis of the representation of principal sources, including politicians, experts, bureaucrats, activists and citizens, in the two Bangladeshi newspapers' coverage of climate change and the Copenhagen Summit. These sources have been discussed in regard to attributing responsibility for the issues raised in the articles, and for verification of the different sources' statements. My analysis has identified three ways in which the journalists framed their sources. Most importantly, for the comparisons being examined in this thesis, while political and citizen sources were used in a legitimacy frame, the bureaucrats and experts were used in a conflict frame, and the business sources in a social progress frame. In the following section, I shed light on how the competing views of various local and international politicians were presented in articles dominated by political sources.

As Table 6.10 shows, both *The Daily Star* and the *Prothom Alo* attributed responsibility for the various problems related to climate change to ‘other countries’ and ‘politicians’ around the world. The term ‘other countries’ here means any country other than Bangladesh, while ‘politicians’ refers to political leaders from both the developed and developing countries.

Table 6.10 Attribution of Responsibility - Politicians as Principal Sources

Responsible Entity	<i>The Daily Star</i>	<i>The Prothom Alo</i>
National Government	3 (6.5%)	10 (15.1%)
Other state	20 (43.5%)	39 (59.1%)
Politicians	15 (32.6%)	6 (9.1%)
Climate Change	6 (13 %)	5 (7.6%)
Others	2 (4.3%)	6 (9.1%)
Total	46	66

Table 6.11 Verifications of Statements - Politicians as Principal Sources

	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Not Verified	14 (73.7%)	33 (82.5%)
Verified	5 (26.3%)	7 (17.5%)

6.3.1 Political Sources in the ‘Legitimacy’ Frame

Political sources were used in a legitimacy frame which emphasised the vulnerability of small nations including Bangladesh using endorsement and support from international political leaders. The articles dominated by political sources demonstrated that politicians from the developing countries sought climate assistance from the developed countries. Politicians were used as sources to legitimise this position. In contrast, western political leaders emphasised the significance of reaching an agreement at the Copenhagen Summit, and of assuring small countries of climate aid to tackle the impact of global warming. The coverage also demonstrated the difference between the position taken by politicians from Bangladesh, and those of the international political leaders. After a careful examination of 112 relevant articles from both newspapers, two articles on the coverage of the Copenhagen Climate Conference were selected for detailed analysis. This conference was widely covered as a global event with local implications. Analysis of the coverage of this conference allowed disclosure of the intricacies of politicians’ representations at the same time highlighting the difference between various leaders’ views of global climate change policy. A fitting example was an item from the *Prothom Alo*:

No agreement so far, World leaders may sign political declaration, Wait for Copenhagen Declaration (*Prothom Alo*, 19 December 2009, front page).

This 463-word article appeared on the front page accompanied by an image of some environmental activists shaving their heads in protest against the looming uncertainty of the conference outcome which, they claimed, was due to hesitant world leaders. The indecision of the world leaders and its impact on the Small Island Nations were the focus of this article. This article’s four sources—three politicians and an expert—raised serious concerns about the conference outcome and expressed frustration at the progress of the final stage of the summit, frustration that was echoed in US President Barack Obama’s speech:

The future of the vulnerable small nations such as Bangladesh will be more endangered if all the countries across the world are unable to reach an agreement in preventing climate change (*Prothom Alo*, 19 December 2009).

The article discussed a call from the political leaders of the Least Developed Countries (LDC) including Small Island Nations for a commitment to emissions reduction from the main carbon emitters, such as the US, China and India. In response to this call, the article also used an excerpt from the Indian Prime Minister Monmohan Singh's speech as a sign of India's cautious enthusiasm for the negotiation process. Mr Singh said:

India is also going to be affected by climate change. Like everyone else, we like to reach an agreement. This agreement will be able to demonstrate a profound respect to the peoples' movement on climate change around the world (*Prothom Alo*, 19 December 2009).

These two quotations, one by President Obama and the other by Prime Minister Singh, revealed little about the complexities involved in the negotiation process; but, they did exemplify the susceptible position of Bangladesh due to climate change and the country's expectations of the Climate Summit. Phrases in the Obama quote such as 'vulnerable small nations' and 'all countries' indicated that the newspaper assigned responsibility for the impending failure to reach a deal at the conference to 'other countries'. From the other end of the political spectrum, the article also used the Indian Prime Minister to argue that the deal was necessary.

However, the use of phrases having what linguists call 'low modality' (i.e., that are indefinite or unassertive) such as "... we like to reach an agreement" demonstrated a degree of uncertainty about the negotiation process in Copenhagen. One could infer that as a dominant leader of G77, the Indian Prime Minister was inclined towards signing an agreement out of respect for the global peoples' movement. However, he was unable to do this because India along with China decided not to support any proposed agreement which enshrined a binding reduction of carbon emissions in developing nations.

From this explication, it becomes evident how the article strategically assigned responsibility for not reaching an agreement to the leaders of ‘other countries’. The ensuing lack of consensus engendered subtle tensions on two fronts: first, between the leaders of the developed (e.g., the US) and the developing countries (e.g., China) on the question of emissions reduction; and second, between the polluting rich and the suffering poor countries such as Bangladesh and Small Island Nations over the question of climate aid. This tension was explicit in the following *The Daily Star* article:

Draft climate accord seems inadequate

(*The Daily Star*, 19 December 2009, front page).

This report verified different political statements using an expert source. As the headline suggests, the item anticipated the outcomes of the summit by using the statements of two political sources and an expert source. This verification provided an extra edge to this report compared to the article in the *Prothom Alo*.

Dr. Saleemul Haq, chief of the climate change cell of London-based International Institute of Environment and Development, who is observing COP15 very closely, said this is totally “inadequate” for Bangladesh (*The Daily Star*, 19 December 2009, front page).

Note that ‘seems’ and ‘inadequate’, which are also terms of low modality, are euphemistic in this context. Although the basis of the headline and introduction consisted of quoting a single word from Dr Huq indicating that the draft was totally ‘inadequate’, it did not elaborate further on this inadequacy. The subsequent information provided by the reporter elaborated slightly on the ‘draft text’ which neither committed to legally binding carbon cuts nor to any climate adaptation funds for ‘vulnerable’ countries such as Bangladesh. By adding this comment in the process of the ‘enmeshing of fact and source’ (Tuchman, 1978), the journalist justified the comment made by the expert and thus highlighted the potential inefficacy of the potential outcome of the negotiations. The selection of Dr Huq’s comment was particularly

noticeable because the country's ruling politicians seemed to have decided not to make any negative comment about the progress of the Summit, a decision reflected in the following discussion.

In regard to adaptation needs, the article referred to Sheikh Hasina, the Prime Minister of Bangladesh, expounding on her call for the inclusion of 'climate refugees' in the climate change agreement. This clause would obligate the developed countries to accept Bangladeshi citizens as 'refugees' on the grounds of their vulnerability due to extreme exposure to climate change. She also indicated her willingness to reduce carbon emissions if the Bangladesh Government received "technological and financial help from developed nations".

The Prime Minister's statement was verified by the Hasina government's Environment Minister Hasan Mahmud who asserted: "None (world leaders) differed with the Prime Minister's demand". However, he acknowledged that "none of them announced anything concrete to save the world", a comment echoed in US President Obama's speech wherein he stated that "there must be financing that helps developing nations".

Thus, its positioning of world and national leaders' speeches and comments demonstrated that the article assigned responsibility to 'other countries' for the dissension that was threatening the negotiation process, dissension that left 'endangered' small nations such as Bangladesh without any significant financial or material support to cope with climate change.

What matters here is not the presence of political sources, but the absence of verification or scrutiny of the positions and assertions adopted and made by the national political leaders. The expectation was that the Summit would reflect on the issues of climate aid and climate refugees. Such lack of verification was generally consistent with the articles that were dominated by political sources (see Table 6.11). However, the English daily tended to verify its source statements with an expert's comment that allowed the newspaper to mediate the international negotiation outcome in a way that endorsed the vulnerability of Bangladesh. Such endorsement by the two newspapers is consistent with what some critics explain as a pattern of relationship between journalism and the nation state in which journalists intervene

in the mediation of issues in the best interests of the country (Anderson, 1991). In this case, the interests of the country of Bangladesh were similar to those of these newspapers.

While the papers relied heavily upon political sources to provide news about climate change, the use of citizen sources or the common people was less frequent. In the following section, I provide an overview of the paucity of citizen sources which, somewhat surprisingly, were used in a similar frame to political sources.

6.3.2 Citizen Sources in the ‘Legitimacy’ Frame

In numerical terms, citizen sources (n=24) were not as visible in the coverage of climate change as other dominant sources. Nonetheless, the presence of these particular sources revealed the significance of some local issues which indicated that climate change was ongoing in Bangladesh. In its coverage, the *Prothom Alo* used more citizens as a principal source (n=16) than *The Daily Star*. Most citizen sources were verified by other sources. In the news content, these citizens predominantly attributed responsibility for various environmental problems to ‘climate change’.

Table 6.12 Attribution of Responsibility - Citizen Sources as Principal Sources

Responsible Entity	<i>The Daily Star</i>	<i>The Prothom Alo</i>
National Government	1 (12.5%)	4 (25%)
Other state	1 (12.5%)	2 (12.5%)
Climate Change	5 (62.5%)	7 (43.8%)
Others	1 (12.5%)	3 (18.8%)
Total	8	16

Table 6.13 Verification of Statements - Citizen Sources as Principal Sources

	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Not Verified	5 (62.5%)	7 (43.8%)
Verified	3 (37.5%)	9 (56.3%)

Below is the analysis of two citizen-sourced articles which nicely exemplify these matters of verification and attribution of responsibility. In these, the sources were used to highlight how some traditional occupations, such as fishing, were struggling with the advent of climate change. These sources also illustrated how small farmers across Bangladesh were adapting to the changing climate.

Farmers never say over in change war: Try out cope-up measures as cropping season shift (*The Daily Star*, 5 December 2009).

This front-page item elucidated the insights of five farmers and a seed trader about the advance of climate change in Bangladesh, a phenomenon manifest in the shifting monsoon season and the rapidly approaching salinity of the country's arable lands. This process of salinity, which expanded to 1.2 million hectares in 2009 from .83 million hectares in 1990, demonstrated the degree to which the erratic climatic pattern was heavily impacting on Bangladesh's farming communities.

Septuagenarian farmer Abu Bakar Siddiqui of Louhoni village says unlike in the yesteryears the winter now comes late and its duration is shorter. He feels that the gap between the daytime and night time temperature is widening. Abu Bakar mentions larger infestation of insects these days, and recalls that there were lot less infestation of insects in the crop fields 20 years back (*The Daily Star*, 5 December 2009).

The elderly farmer's view was supported by local seed trader Md Shah Alam who frequently received complaints from farmers stating that they had applied similar doses of pesticides to previous years but were "not getting relief from pest attacks". Dr S. K. Ghulam Hussain, a Director of the Bangladesh Agricultural Research Council (BARC), who had been monitoring the possible impact of climate change on the country's farmlands, confirmed Abu Bakar's concerns and observations, saying: "We're in a virtual climate change laboratory, which is a natural advantage for us".

His use of the term 'climate change laboratory' suggested that the changing nature of the climate made them more open to innovation, and more able to adapt to the consequences of increasing temperatures and shifting seasons. This malleability was also reflected in the farmers switching from rice variety BR-28 to BR-29, which has the capacity to cope with temperatures that exceed 30 degrees Celsius (a fact confirmed by rice breeding scientist Professor Zeba Seraj of the University of Dhaka).

While the farming communities were seemingly fighting the adversities of climate change and winning, the scenario was gloomy for the fishermen in the country's north-western coastal regions whose livelihoods were becoming seriously endangered.

Changing climate, disappearing trade

(Prothom Alo, 7 December 2009).

This article cited 56-year-old fisherman Abdul Jalil, who had been fishing in the Bay of Bengal for the last 35 years. He said that he had never seen so many natural disasters in his lifetime. During the past year, the conditions were so bad that he was unable to fish, not even for a month. Another fisherman, Syed Nur, expanded further, saying that fishing communities in the coastal zone were being severely affected by natural disasters. When inclement weather stopped the trawlers from going to sea, there was no catch and the fishermen earned no income. Most importantly, he said, if a trawler sank and the fishermen drowned, there was no compensation for their families. With this in mind, numerous fishermen had opted to quit fishing and commence day labouring to support their families.

The fishermen's frustration over the changing climate, and their struggle against natural calamities were explained by both Bureau of Meteorology expert Md Rahseduzzaman and the chief of the Disaster Research Centre at the University of Dhaka, A. Q. M. Mahbub. These two experts attributed the plight of the fishermen mainly to the rising water temperature in the Bay of Bengal, which caused frequent periods of low pressure and cyclones in the coastal areas. The rising frequency and intensity of pressure was primarily caused by climate change over the last few years.

A significant number of articles attributed responsibility for the various environmental problems to 'climate change'. Few regarded 'other countries' as the cause. These articles portrayed the effects of a changing climate on two very traditional yet still significant occupations, i.e., farming and fishing, in this riverine country. However, in the process of verification, the articles revealed that while the farming community was adapting, fishermen were being displaced. The articles validated 'climate change' in Bangladesh using similar sources but two different instances. In particular, the newspapers' process of representing their sources consisted of verifying citizen sources who were experiencing climate change using 'knowledgeable' expert sources to further strengthen the position of the two articles.

The position on climate change was legitimised through the example of the adaptation of farming and the displacement of fishing.

6.3.3 Bureaucratic Sources in the ‘Conflict’ Frame

In both newspapers, the number of articles dominated by the bureaucrats (n=29) was significantly low compared to the articles dominated by political and expert sources. The bureaucratic sources were largely consigned to a conflict frame (Neuman, 1992; Semetko & Valkenburg, 2000) and manifested in the contestation between various international bureaucrats and politicians over the predicament of the Copenhagen Summit. The ways in which bureaucrats were used to render the politicians responsible for the stalemate in the negotiations specifically indicated a sense of conflict between the two groups. This positioning of international bureaucrats was further strengthened by the perspectives of the activist sources.

Table 6.14 Attribution of Responsibility: Bureaucratic Sources as Principal Sources

Responsible Entity	<i>The Daily Star</i>	<i>The Prothom Alo</i>
National Government	2 (11.11%)	2 (12.50%)
Other state	10 (55.55%)	9 (56.25%)
Politicians	4 (22.22%)	1 (6.25%)
Climate Change	1 (5.55%)	1 (6.25%)
Others	1 (5.55%)	3 (18.75%)
Total	18	16

Table 6.15 Verification of Statements: Bureaucratic Sources as Principal Sources

	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Not Verified	2 (40%)	5 (50%)
Verified	3 (60%)	5 (50%)

The results showed that most articles either assigned responsibility for environmental problems to ‘other states’ or deemed them responsible for solving the problem of climate change. In both *The Daily Star* and the *Prothom Alo*, a high share of articles (55 and 56 per cent respectively) emphasised the liability of ‘other states’ for resolving the climate change issue (see Table 6.14). In addition, the newspapers held the ‘politicians’ responsible for local issues, such as the relentless plundering of forests and natural resources, and the impact of such plundering on the climate of Bangladesh (n=6). This was identified as ‘economic exploitation’, a subject I discussed in a preceding section of this chapter. Following a close examination of the articles dominated by official sources, one article from each newspaper on the Copenhagen Conference was selected for further analysis following the exclusion of 15 news agency articles. These two articles succinctly epitomise the developing countries’ concerns regarding the actions of the developed world during the Summit. This was achieved in these articles by using bureaucratic and other sources, for example, politicians and activists. Below are the headlines of the articles based mainly on bureaucratic sources.

Danish text leak sparks debate over talk’s success

(*The Daily Star*, 10 December 2009, front page).

Leaked draft: Conference Centre in Chaos

(*Prothom Alo*, 10 December 2009, front page).

Both articles highlighted the revelations in the Danish Draft titled ‘Adoption of the Copenhagen Agreement’. They used two different bureaucratic sources which were subsequently verified by expert, political and Non-Governmental Organisations (NGO) sources. While the *Prothom Alo* presented this issue in a feature article, in *The Daily Star* it appeared as a hard news story directly indicating the looming uncertainty of the Summit’s success, uncertainty echoed in a statement made by the G77 Chief Negotiator Lumumba Stanislaus Di-Aping:

I would like to say on behalf of G77 that this is a very serious development. It’s a major violation that threatens the success of the Copenhagen negotiations (*The Daily Star*, 10 December 2009).

Referring to the leaked draft, the article further elucidated how the draft by-passed the spirit of the Bali Action plan. The latter recommended a legally binding agreement and adequate assistance for developing countries. However, according to the leaked draft:

“International public finance support to developing countries would reach the order of (X) billion USD in 2020 on the basis of appropriate increases in mitigation and adaptation efforts by developing countries” meaning it would make any money to help poor countries adapt to climate change depending on their actions (*The Daily Star*, 10 December 2009).

The inclusion of conditions pertinent to climate aid left developing countries like Bangladesh infuriated. The *Prothom Alo* termed the draft a “very dangerous document for the developing countries” (10 December 2009). The leaders of the developing countries expressed their exasperation and found the support of NGOs, including the World Wildlife Foundation (WWF) and Oxfam International. With reference to the NGO sources, *The Daily Star* described the draft as a behind-the-scenes process involving a ‘secret discussion’ between the US, the UK and the Danes, who were unquestionably preparing these recommendations to favour the rich and powerful countries. As Antonio Hill, the Climate Adviser to Oxfam International commented:

Like ants in a room full of elephants, poor countries are at risk of being squeezed out of climate talks in Copenhagen ... This is only a draft but it highlights the risk that when the big countries come together the small ones get hurt (*The Daily Star*, 10 December 2009).

The use of terminology such as ‘Like ants in a room of elephants’ and ‘secret discussion’ clearly demonstrated the powerlessness of the small nations and, thus reified the allegation of ‘major violations’ made by the G77 bureaucrats. The article also mentioned the Danish Minister’s denial of the existence of such a draft, as well as a counter-denial by the G77 Chief Negotiator reconfirming the existence of the draft.

Generally speaking, the articles demonstrated how the counter-denial group led by the Chief Negotiator of the G77 made their voices heard and attributed responsibility for the impending failure of the summit to the leaders of the rich and powerful (or ‘other’) countries. This was also demonstrated in the use of NGO sources to verify the G77 position. It was not only the prominence of the voice: what matters here is the process of vigilance, in which journalists verified the assertions made by bureaucratic sources by incorporating activist sources who were comparatively less visible. These sources were also found in the *Prothom Alo*’s coverage, albeit not to the extent of *The Daily Star*’s coverage. The *Prothom Alo* journalists made little mention of the activist organisations, opting not to supply further details. The article was verified by expert sources from Bangladesh who reaffirmed the concerns raised by the G77 official. Both articles raised apprehensions about the Draft document that had been prepared by participating first world countries and strongly supported the position of the international bureaucrats with verification from NGO leaders. This was quite consistent with the overall ratio of verification of the articles dominated by bureaucratic sources, most of which were clearly verified (see Table 6.15).

While *The Daily Star* and the *Prothom Alo* covered similar issues pertaining to the summit, there emerged a fine difference between the ways in which the two newspapers presented these issues. This difference was quite symptomatic of the coverage of the Climate Summit, in which the media mostly cited bureaucratic sources. *The Daily Star*, using a variety of

sources, presented the issue in relation to the outcome of the Summit and its impact on Bangladesh. The *Prothom Alo*, which treated the conference news broadly through event-based coverage, focused more on the externalities of the Summit, e.g., on protests by different small nations, activist organisations, and press conferences. It cited comparatively fewer sources than its English language counterpart. The reason why the *Prothom Alo* relied more upon event-based articles may lie in the fact that access to various sources and resource materials from the Summit proved problematic for the newspaper. The resource materials provided to the journalists by the Summit organisers were mainly in the English language and translating these documents quickly into Bangla was challenging, particularly given the deadline-driven environment of contemporary news activity. This was an important finding in the context of comparative journalism research. The implications of the linguistic choice made by intergovernmental organizations remain important into the 21st Century.

It may be surmised from the above discussion that in the main the journalists cited activists and expert sources to verify the bureaucrats' statements and assertions. The process of verification included the Danish politicians' denial of the existence of a draft document and a counter-denial from Di-Aping of the G77, controversy which indicated the use of a contestation frame between the developed and developing world. In the following section, I further analyse the contestation between the two parties, using expert perspectives of the issue of climate change.

6.3.4 Expert Sources in the 'Conflict' Frame

As suggested in Chapter 4, this study found a high number of expert sources along with political, bureaucratic and activist sources. Among these, only 22 experts were used as principal sources. However, during my analysis of the attribution of responsibility and verification, nine articles from news agencies (six in *The Daily Star* and three in the *Prothom Alo*) were discounted since they were not the work of the newspapers' own journalists. In both newspapers, responsibility for the issues raised in these articles was mainly attributed to

‘other states’. In statistical terms, 62.5 per cent of the attribution in *The Daily Star*, and 42.9 per cent in the *Prothom Alo* were to nation states other than Bangladesh.

Table 6.16 Attribution of Responsibility: Expert Sources as Principal Sources

Responsible Entity	<i>The Daily Star</i>	<i>The Prothom Alo</i>
National Government	--	2 (14.3%)
Other state	5 (62.5%)	6 (42.9%)
Politicians	--	1 (7.2 %)
Climate Change	3 (37.5%)	4 (28.6%)
Others	--	1 (7.2%)
Total	8	14

Table 6.17 Verifications of Statements: experts as Principal Sources

	<i>The Daily Star</i>	<i>The Prothom Alo</i>
Not Verified	4 (50%)	8 (57.1%)
Verified	4 (50%)	6 (42.9%)

Evaluation of the attribution of responsibility and verification of different statements in the articles dominated by expert sources provides a diverse understanding of the purpose of using

such sources in news content (Albaek, 2011; Schudson, 2006). Following a close reading of 28 articles, three were selected from the two newspapers for further examination because they exemplified the experts' concerns about the various implications of the Climate Change Summit for Bangladesh. The evaluation of expert sources in these articles facilitated an understanding of the reasons they were chosen over other sources or social actors. To this end, the following section examines an article from *The Daily Star*:

Bangladesh worst affected by changing climate

(*The Daily Star*, 8 December 2009).

This article appeared in *The Daily Star* subsequent to a report by an NGO—the German Watch—on the eve of the Copenhagen Summit. The 398-word article, which described in detail Bangladesh's vulnerability to natural calamities, highlighted the intensity and frequency of the natural catastrophes that had occurred during the last 20 years and claimed 8,241 lives in this delta land. This high frequency of disasters made Bangladesh one of the most vulnerable countries in the Global Climate Risk Index (GCRI). The high frequency of natural disasters clearly suggested that 'climate change' was responsible for the loss of thousands of lives in Bangladesh, a claim verified by an expert source of Bangladeshi-origin. The article also mentioned the two German authors of this report; but, it did not raise any questions or seek any comments from them about their findings on climate change. However, it questioned the process of measuring the GCRI using comments by Dr Saleemul Huq, the Chief of Climate Change Cell of the International Institute of Environment and Development:

It's really hard to make a climate risk index. Only the number of people killed in natural calamities and losses of properties were counted to make this report. But millions of people, who survived extreme weather events and who are suffering across the globe, were not taken into the account (*The Daily Star*, 8 December 2009).

From this comment, it may be inferred that the item attempted to show the inadequacy of the GCRI by appreciating the vulnerability of climate victims in Bangladesh's deltaic plain. But,

it may also indicate the different perspectives of experts from developed and developing countries on the risk index. While the German experts only took into account the number of direct victims of calamities, their developing world counterparts preferred to include not only the direct casualties, but also the plight of those who survived. This may be why the expert from Bangladesh, Dr Huq, argued that the extent of vulnerability encountered by this country was not comparable to other small nations because of the enormous scale of human suffering due to the calamities.

The article presented the German research report and crosschecked it citing an expert source. Checking was significant in the analysis of news production because it enabled exposure beyond what ‘really’ happened; that is, the German Watch study report. But, the local expert’s perspective highlighted the study’s inability to take into account the plight of the millions of disaster survivors. While this article demonstrated a scenario of contestation between international and local experts, the following two articles offered an opportunity to analyse the presence of various expert sources in climate change-related news.

Carbon cut pledge, legal string missing

(The Daily Star, 20 December 2009, front Page).

The above article emphasised the insignificant progress achieved at the Copenhagen Summit, which was reflected in the hurried signing of the deal at the very last minute. The deal did not include any major commitment to the reduction of carbon emissions either from the developed (e.g., the US) or the developing countries (e.g., China and India). The 666-word article cited one political and two expert sources. The article again sought comments from the previously cited expert Dr Huq, who was somewhat critical of the outcome of the Summit:

[T]he Copenhagen accord has not mentioned any peaking year. It does not also specifically say about emissions curbing target of the developed countries. So we can say Bangladesh did not get what we were expecting (*The Daily Star*, 20 December 2009).

However, politicians from Bangladesh, including the Environment Minister Dr Hasan Mahmud, felt reassured that the country had played a strong role in the Summit, and that its ‘visibility’ as one of the world’s most vulnerable countries had been established. Terming such ‘visibility’ a ‘big achievement,’ the Minister further commented: “It was Bangladesh who put the demand on behalf of the LDCs”. The inclusion of this comment from the Minister could be considered indicative of the positive role that Bangladesh had played in the Summit; and, the above expert did not directly refute the achievement of the country at the Summit. However, he expressed his concern over the fact that the country had not received any commitment vis-à-vis the expected climate fund.

The *Prothom Alo* article cited a number of experts who also participated in the summit as part of the Bangladesh delegation. Their comments demonstrated that while they did not disagree with Dr Huq, they were inclined to see the outcome of the negotiations in a more positive light. This was not only similar to the inclinations of the politicians mentioned above in *The Daily Star* report, but was to some extent evident in the article that appears below:

Bangladesh successful in climate diplomacy, the battle is now for the compensation (*Prothom Alo*, 21 December 2009, front page).

This 439-word article used three expert sources who were members of the Bangladesh delegation: two climate scientists and an IPCC member. The IPCC member, Dr Atiq Rahman, commented:

Bangladesh has successfully utilised the scope of demonstrating its influence particularly in presenting scientific data about the climate change which engendered an increasing sympathy towards us as one of the vulnerable nations in the world. This was manifested in the mentioning of Bangladesh across different sessions including the IPCC’s technical session as well as the world leaders’ political session (*Prothom Alo*, 21 December 2009).

However, one of the experts, Dr Ain-un-Nishat, made cautious observations about the bleak prospect of the country's receiving either an adaptation or mitigation fund because of the absence of any legally binding clause. Despite this, he argued:

Two important issues had been acknowledged in this summit. Firstly, the IPCC's scientific cautionary message, and secondly, the recognition of the vulnerability of Bangladesh (*Prothom Alo*, 21 December 2009).

This recognition of 'vulnerability', together with the 'uncertainty' surrounding the receiving of a fund, could be considered as assigning responsibility to 'other countries'. In particular, the achievement of 'visibility' by Bangladesh demonstrated that the acknowledgment of susceptibility to climate change—and subsequent assistance to tackle it—actually depended on recognition by the developed countries.

The above analysis shows that the journalists positioned both the experts and politicians in a synchronised, mutually reinforcing way, particularly in the *Prothom Alo*. This synchronised position raised further questions about the value of experts' viewpoints which were supposed to be independent of the authorities (Schudson, 2006; Boyce, 2006; Ericson et al., 1989). *The Daily Star's* article was a particular case in point: it used an international expert of Bangladeshi-origin who was critical of the outcome of the summit. This expert's criticism raised serious questions about the views of the expert members in the official Bangladesh delegation who took a very positive view of the summit outcome in accord with the official position.

In these three articles, the importance is in the difference of opinion among the experts. The use of one quite critical expert in two articles in *The Daily Star*, and another expert's cautious observations regarding the conference outcome in the *Prothom Alo* could be regarded as indicative of subtle disagreement among the experts, the extent of which was not as explicit as in the articles dominated by the bureaucratic sources. However, this disagreement was quite useful in that it exposed the variations in perspective among the experts from the developed and developing worlds, as well as between the international and local experts.

The following section discusses the representation of less visible business sources in regard to attributing responsibility and verification of statements.

6.3.5 Business Sources in the ‘Solution’ Frame

In general, while the number of articles dominated by business sources was quite small, the tone of these articles was positive regarding various climate change issues. Business voices were quoted in what I have termed the ‘solution frame’ that emphasised how these interests were attempting to contribute to the global process of emissions reduction. However, the share of articles dominated by business sources was approximately two per cent in both newspapers; and, the coverage was very similar. Despite this low quantitative presence, the articles were significant in as much as they dealt with the controversial carbon trading scheme which allowed countries or companies to buy or sell ‘carbon credits’, a scheme that was introduced to reduce carbon dioxide in the atmosphere. While representation of carbon trading was contentious in Australia (see previous chapter), it received very positive coverage in Bangladesh, evident in the following analysis of two articles from the two newspapers under scrutiny.

Brick kilns going green, Operators eye benefit from carbon trading

(*The Daily Star*, 14 December 2009).

COP-15 Bangladesh is selling ‘economic carbon’

(*Prothom Alo*, 13 December 2009).

The Daily Star coverage was based on a visit to brickfields in Dhaka, and the *Prothom Alo*’s was about the COP-15 conference in Copenhagen. The *Prothom Alo* article mentioned that the conference delegates’ air travel would produce 40,000 tonnes of carbon dioxide in the atmosphere. Based on this measurement, the Danish Government had planned to issue financial instruments/certificates worth \$15.20 per unit of carbon pollution for this conference. The *Daily Star* article, which made reference to the Dhaka-based Brick

Manufacturing Company, asserted that the company was eligible to receive a certificate because the clean technology that it used in the brickfields released far fewer emissions into the atmosphere. This particular brick business was funded by various industry finance companies. Motiul Islam, who was the chairman of one of the companies that supported this new technology and had recommended it to the brickfield owners in Dhaka, considered this company to be “environmentally friendly”. He hoped that the business would earn “significant foreign currencies” through carbon trading. In a statement to the *Prothom Alo*, Mr Islam said:

The World Bank has also agreed to sign an ERPA (Emission Reduction Purchase Agreement) about the reporting of the quantity of emission reduction, certification of emission reduction and receipt of bulk payment from the Carbon Fund which will be distributed to various sub-project entities (*Prothom Alo*, 13 December 2009).

The *Prothom Alo* article included some numerical figures which signalled that the company would sell 189,000 thousands tonnes of ‘saved carbon’ to the World Bank. Forty per cent of the earned foreign currency would be given to the brickfield companies and the rest would be retained by the finance company. These articles demonstrated the brick industry’s high expectations regarding ‘carbon trading’, particularly following the employment of the German technology known as the Hybrid Hoffman Kiln. Citing M. Zaydul Abedin, the owner of a brickfield, *The Daily Star* article described the benefits of this technology in detail:

A single kiln that runs on HHK technology will produce 15 million bricks and cut carbon emission by 5,000 tonnes a year. A double unit kiln will produce 30 million bricks and cut carbon dioxide (CO₂) emission by 10,000 tonnes every year (*The Daily Star*, 14 December 2009).

The above excerpt demonstrated that the brickfields—one of the highest polluting industries in Bangladesh—could cut their carbon emissions significantly by using the new technology. However, the article also stressed that the new technology would cost ten times more than the traditional brickfield technology. The *Prothom Alo* article used two news sources and *The*

Daily Star five sources. However, no article verified any statements with either the Danish Authorities or the World Bank. Given this absence of verification, the articles could not legitimately shed much light on the prospects for ‘carbon trading’ in Bangladesh. This is particularly important because in the current context, controversy is mounting regarding the efficacy of carbon trading (a subject that I discussed in detail in the previous chapter about new sources in Australia). But, notwithstanding, the business sources in these articles clearly spelled out the company’s enthusiasm for business opportunities, which could help Bangladesh to reduce its carbon footprint both locally and globally.

Sources were cited in these articles as saying that a solution to reducing carbon emission in Bangladesh would also contribute to the reduction of global emissions. The articles also explained the urgency for reducing carbon emissions. With reference to the Kyoto Protocol, they indicated that the developed countries had been expected to reduce their carbon emissions by 5.2 per cent by 2012. The evidence showed that most of the developed countries had failed to reach that target. Their inclusion of the conditions advocated by the Kyoto Protocol made clear that the articles placed full responsibility for reducing carbon emissions on ‘other countries’. Within the context of the failure of the developed countries, the effort (e.g., adopting HHK technology) made by the businesses in Bangladesh signalled the degree to which they were contributing to the ‘solving’ the global emissions problem.

However, questions may be raised in light of the fact that some statements from business sources were not verified, an omission that gives rise to the following questions: (1) in their promotional articles, did the journalists deliberately depict a progressive and positive image of both the company and Bangladesh? and, (2) was the non-verification of statements associated with the business sources’ reluctance to engage with the process of mainstream journalistic scrutiny? (Galbraith, 2004, quoted in Doyle, 2006; Davis, 2002). By assigning the responsibility to ‘other nations’ without incorporating the views of the implementing authorities regarding ‘carbon trading,’ the journalists attempted to demonstrate that although Bangladesh was not wholly responsible for carbon emissions, it could assist the world to reduce emissions into the atmosphere. In this way, it adopted a positive albeit superficial ‘solution’ stance.

6.3.6 Conclusion

The analysis of principal sources through the verification and attribution of responsibility demonstrates how various interests, e.g., politicians, citizens, experts, and bureaucrats, were framed in legitimacy, conflict and solution frames. Similar to the result of my source analysis of the Australian newspapers (see Chapter 5), political, bureaucratic and expert sources were mostly used in the coverage of climate change. Political and citizen sources were used in a legitimacy frame; but, citizen sources were verified more often than political sources. The lack of verification of political sources may be due to the tight deadline observed by daily news production which does not allow journalists sufficient time to crosscheck statements (as discussed in Chapter 5). This argument is supported by the fact that the rate of verification of the other two types of dominant sources (bureaucratic and expert) was higher than that for political sources. It seems probable that the types of articles in which these sources were used had a less pressing deadline than articles dominated by political sources.

Although the extent of verification varied within the three dominant sources, the attribution of responsibility was similar. Responsibility was mostly attributed to ‘other countries’. It is important to note that while political sources were mainly used in a legitimacy frame, bureaucrats and experts were used in a conflict frame. The obvious question to raise here is: why this difference in frames when there was similarity in the attribution of responsibility? This may be due to journalistic intent to highlight certain aspects of these articles (in this case, the responsibility of ‘other countries’ for environmental problems). Thus, the ways in which the newspapers attributed responsibility were not always predetermined; rather they were contingent, depending on the event or issue and the associated actors. This is why this study found that political and expert sources were used in two different frames in Australia and Bangladesh. In Bangladesh, the framing of expert sources that displayed a subtle contestation between international and local-origin expatriate experts was particularly notable. However, unlike in the Australian case, in Bangladesh, both local and international politicians were presented or framed in such a way as to endorse the climate vulnerability of this low-lying country.

Although the pattern of visibility of business sources appeared quite similar in both newspapers, this was not the case when it came to the use of citizen sources. Two sources were used in two different frames: business sources in a solution frame, and citizen sources in a legitimacy frame. The presence of citizen sources was quite significant because in both newspapers they were used in a legitimacy frame that assigned responsibility to climate change. However, the two newspapers characterised the citizen sources very differently. While *The Daily Star* portrayed citizen sources as ‘tough battlers against climatic calamities’ and depicted them as a symbol of Bangladesh’s capacity to address climate change, the *Prothom Alo* created a context that emphasised the climatic vulnerability of Bangladesh. Unlike the two Australian newspapers, the Bangladeshi newspapers unanimously supported the assumption of climate change and its consequences for the low-lying land.

Comparison of the sources in the two issues (river systems & climate change) established several patterns. Overall, it was found that the newspapers mainly attributed responsibility for the degradation of river systems to the ‘economic exploitation’ of water bodies, whereas climate change was presented as caused by ‘other countries’. When identifying responsibility in the coverage of river systems, I found a high presence of bureaucratic sources and a small number of citizen sources; however, both sources were used in a conflict frame that enabled the newspapers to challenge the government position on river systems. In contrast, the climate change coverage was dominated by political and expert sources. However, they were used in two different frames—legitimacy and conflict frames respectively. In assigning responsibility to ‘other countries,’ whereas the expert sources were positioned to disagree about the impact of climate change on Bangladesh, the politicians were used in a legitimacy frame to reconfirm the country’s climate vulnerability. So, as regards both local river systems and global climate change issues, the politicians were framed as legitimising micro-level environmental and macro-level global concerns. Overall, in both events I found the use of citizen sources indicative of the newspapers’ inclination to view the two issues in two different frames. In the news pertaining to river systems, while the newspapers used citizen sources to challenge authority, at the same time, the same citizen sources were used to legitimise the climatic concerns of this country.

Chapter 7

Frames, Issues and Sources: Australia and Bangladesh

7.1 Introduction

In the preceding chapters, I have explored how journalists chose certain voices or sources over others when shaping public debate. As well, I have identified a number of frames to highlight certain perspectives emanating from the coverage of two interrelated environmental issues in Australia and Bangladesh—river systems and climate change. The findings demonstrate the importance of examining the factors that have enabled the exploration of similarities and differences in the news coverage, and the extent to which diversity and uniformity of journalistic practices (Golding 1977, Esser & Hanitzsch 2012) were found in these two vastly diverse countries. Analysis of these similarities and differences (discussed in Chapters 4, 5 & 6) provided an adequate explanation for the prominence and framing of sources.

7.2 What the Analysis Reveals?

In Australia, the local issue of river systems and global issue of climate change were strongly linked, a link observed both at the policy and scientific levels. For example, the connection was palpable in the thorough scientific investigations conducted by the CSIRO and the Bureau of Meteorology in Australia. However, the extent to which their river systems and climate change issues were interrelated differed in the two countries. In Bangladesh, few newspaper articles addressed the environmental issues. As discussed previously (Chapter 4), these articles presented a positive picture of the impact of climate change on the river systems based on scientific investigation (accretion of land in the coastal river mouth).

In the case of Bangladesh, the two issues were seldom related. This difference in the pattern of relationship had its genesis in the diverse nature of environmental problems faced by the two countries. For example, Australia is an arid, dry island continent while Bangladesh is a low-lying 'land of rivers.' Other than these natural characteristics, there are important differences in their respective political and media contexts as well. This recognition of difference in news coverage corroborates James Carey's contention that the practice of journalism is "a craft of place" (Carey, 2007, p. 5) and shows how news media operate in the "light of local knowledge". In the articles that appeared in the two newspapers in Bangladesh, the pressing issue was severe ecological degradation of river systems, not the effects of climate change. Here, the broad issue of climate change mattered less compared to the micro-level river systems problems. Rather, focus on ecological degradation indicated that the inherent characteristics of environmental coverage were underpinned by the "alarmed discovery" of the problem and the news media's willingness to solve said problems (Downs, 1972; Hansen, 1991). Their identification of news topics such as river pollution and floods offered useful pegs allowing the journalists in Bangladesh to highlight these issues in the public domain.

However, in the coverage of climate change, the pattern of attention in Bangladesh was similar to that in Australia, although this does not mean that the editorial positions of all four newspapers were the same. Rather, they differed in as much as Australia saw itself as a developed country responsible for a considerable level of carbon emissions while Bangladesh, as a developing nation, saw itself at the receiving end of—and wronged by—global emissions.

Within these broad positions, the four newspapers maintained their particular focus on their respective countries' riverine and climatic problems. In Bangladesh, the newspaper articles tended towards seeking environmental justice in both cases, i.e., climate change and river systems. In their articles on climate change, the Bangladeshi newspapers sought justice from the greenhouse gas-emitting Western countries, a perspective particularly evident in their articles on the Copenhagen Climate Change Summit. Similarly, in their articles on river

systems, they sought justice from local governments, urging them to act to salvage the polluted and damaged rivers from the perpetrators of environmental wrongdoing. However, in seeking justice and establishing these claims, the *Prothom Alo* relied more on news and feature articles while *The Daily Star* used more commentaries (i.e., opinion pieces). This reliance was particularly evident in their analyses of the effects of climate change and river systems. While the former published news reports on the topic, the latter predominantly published opinion columns.

The differences in the two Bangladeshi newspapers' pattern of coverage created an opportunity to reassess the news media's role as agents of "effective development change" (Gunaratne, 2007; Chowdhury, 2003) in non-Western developing countries, an argument proposed by a number of scholars (see Chapter 2). These differences were not as marked in the Bangladeshi newspapers as they were in the Australian publications. However, they may be signs of a gradual shift from "socially responsible" to "market-oriented" journalism (Curran & Park, 2000; Curran, 2002). This explanation seems plausible, particularly in the context of the Asia-wide surge in newspaper circulation, including Bangladesh (Weaver & Willnat, 2012). "Market-oriented" journalism is characterised by the need to empower their respective readerships in ways which would otherwise be unavailable to them. The widely-circulated *Prothom Alo* depicted the impact of environmental issues on its readers' lives through numerous spot news reports and featured articles. On the other hand, the elite-oriented *The Daily Star*, which is closely aligned with the NGOs, clearly defined its role as a builder and promoter of civil society alongside—and sometimes in opposition to—the Government. This English-language daily relies on its opinion columns to engender debate and discussion among its English-language readership that while small in number is influential in policy circles, both at home and abroad, including the global Bangladeshi diaspora. *The Daily Star* often overtly campaigns on environmental issues to influence and shape government policy (Das et al. 2009; Das, 2012).

In Australia, the differences between *The Sydney Morning Herald* and *The Australian* were more marked, although in broad terms, their concerns regarding environmental policy in the

coverage of river systems and climate change were somewhat similar. This similarity was evident in the proposed ‘market solution’ to addressing the water management of the Murray-Darling Basin as well as in the broad issue of climate change in Australia. However, the degree of orientation towards these matters differed between the two newspapers. Articles in *The Sydney Morning Herald* evinced a ‘concerned’ position, while those in *The Australian* demonstrated an ‘unconvinced’ position vis-à-vis market solution policy, i.e., the Emissions Trading Scheme, a position very much aligned with the then Opposition’s climate change policy (see Chapter 4). *The Australian*’s alignment with the Opposition’s approach to climate change policy indicated a predisposition towards ‘political parallelism’ in this national broadsheet’s articles. Evidence of political parallelism in *The Australian*’s climate change-related coverage was traced and confirmed in the fields of political science (Manne, 2011) and journalism studies (Bacon, 2011). Robert Manne’s investigation clearly revealed how the opinionated columns in *The Australian*, which were predominantly written by ‘sceptical non-scientists,’ denigrated views in favour of taking radical action to tackle climate change (McGaurr & Lester, 2013).

Unlike in Australia, in Bangladesh, articles in the *Prothom Alo* and *The Daily Star* revealed a broadly similar pro-conservationist position (similar to *The Sydney Morning Herald*) although the journalistic formats differed from each other due to their distinctive readerships. *The Daily Star* tended to define the reality of the two environmental issues by publishing more opinion pieces, whereas the *Prothom Alo* focused on the event ‘as it happened’ and carried greater numbers of news items featuring diverse community perspectives. While this similarity in the pro-environmentalist positions of both newspapers was consistent with a previous investigation into environmental reporting in Bangladesh (Das et al., 2009), it was not in agreement with the findings of a similar comparative study of newspaper reporting in India and the UK (Chapman et al., 1997). In the latter study, the authors found that the English press in India was pro-environmental, and that the local ‘language’ press was more pro-development, due to the respective newspapers’ elite and non-elite readerships (discussed in Chapter 3).

However, as suggested earlier, the positions of the two Australian newspapers regarding environmental policy differed significantly, variations that were presumably underpinned by their targeted readerships and high-market orientation that induced the journalists to prioritise the choices of their respective audiences (Hanitzsch & Donsbach, 2012). *The Sydney Morning Herald* claims that it delivers “courageous and independent journalism” and is well-known for its pro-environmental coverage (Debrett, 2012; Ryan, 2013). But, this claim was recently disputed by some critics (Simons, 2011; Beecher, 2013) citing continuous job cuts in the Fairfax media groups which were seen as affecting the quality of the paper’s journalism. On the other hand, *The Australian* sees itself as a “global business brand” aiming to lead the Australian business environment. This newspaper is also renowned for being “a remorseless campaigning paper” (Manne, 2011, p.3). Its relentless business orientation may be the reason why its articles related to river systems and climate change were broadly ‘unconvinced’ regarding market solutions. Furthermore, it rigorously opposed the emissions trading policy, raising speculation about potential job losses impacting on the Australian economy.

Overall, the findings of the coverage of environmental issues in the current study are consistent with those of comparative studies of environmental issues in the US, France (Brossard et al. 2004), the US and the UK (Boykoff, 2007). These studies argued that the practice of journalism in the above countries differed significantly, given that the news content was “domesticated” despite the fact that climate change has no borders. While these studies examined environmental issues and the professional norm of objectivity (see Chapters 3 and 5), the current study has extended its focus to the use of sources in news coverage in a bid to understand their role in the framing of ‘policy issue debates’ surrounding river systems and climate change in the two countries under scrutiny.

7.3 River Systems and News Sources

To summarise the study’s principal findings, experts and bureaucrats as authoritative agents were the most consistently nominated groups asked to discuss and explain issues relating to

the two countries' river systems (the Murray-Darling and the Ganges-Brahmaputra). These sources were frequently cited in articles which invoked legitimacy and conflict frames in policy issue debates. From a critical cultural perspective, one may argue that journalists consciously selected certain types of sources to support a predetermined news frame (Reese, 2007; D'Angelo, 2002). In the case of this study, the two aforementioned frames revealed how the newspapers defined the Murray-Darling issue as a problem of low-water flow in the Basin, and the Ganges-Brahmaputra problem as the authorities' failure to protect the water bodies from alleged environmental wrongdoers.

In the Australian context, experts' statements were cited to attribute responsibility for the degradation of the Murray-Darling Basin to climate related issues and government policy. The assertions of expert sources were verified or 'cross-checked' with those of the farmers. This cross-checking, in turn, has provided an understanding of how the two newspapers prioritised certain sources over others in the process of framing of sources. In Bangladesh, by contrast, bureaucratic sources were cited to attribute responsibility to a certain group of people for the ill-health and exploitation of the rivers. These sources were frequently used to explain 'economic' exploitation, then verified by the citizens' voices. In the verification process, both newspapers clearly put citizens and bureaucrats in contestation with each other when government officials attempted to shrug off responsibility, for example, for illegal encroachment on riverbanks.

Generally speaking, it may be asserted that different framing in the selection of sources was evident in the two countries. Their newspapers demonstrated different priorities in the selection of sources or issues (e.g., experts/bureaucrats; responsibility) over others. As well, there were important differences in terms of verification of source statements. The articles in *The Australian* were apparently cross-checked more often than those in *The Sydney Morning Herald*. Similarly, in Bangladesh, the articles in the *Prothom Alo* were verified more often than those in *The Daily Star*. This diversity in the process of verification and selection of sources indicated that different newspapers maintained different interests by highlighting certain aspects of the degradation of the river systems (see Chapter 6). The selection of

sources, and the information they provided for the news stories, “undoubtedly influence news framing” (Bennett; 2010; Tuchman, 1978; Dimitrova & Stromback, 2012). Such influences may be found in the use of two different types of dominant sources in relation to different frames; expert sources in the legitimacy frame, and bureaucratic sources in the conflict frame.

7.4 Other Sources Emphasised

Sources related to agricultural interests were the second most dominant source in the coverage of the Murray-Darling River systems; however, these sources were mainly cited as auxiliaries in the expert-dominated articles. They were used in the context of contestation between farming and government interests over the efficient management of water (conflict frame). Articles in the Australian newspapers cited activists and expert sources in (counter) verification to highlight two types of disagreements: 1) between the farmers and the government (*The Australian*); and, 2) between the farmers and the conservationists (*The Sydney Morning Herald*). In particular, articles in *The Australian* offered implicit support for the Federal Government’s procurement of the Cubbie Station, a move directly opposed in articles in *The Sydney Morning Herald* supported by expert sources.

Among the most important findings in Bangladesh was the fact that environmental activists appeared as the second most frequent source and were used to endorse concerns surrounding the river systems. However, the extent to which the various claims made by activist sources were verified was inadequate, particularly in the English language newspaper *The Daily Star*. There are probably several reasons for this infrequent verification of activist sources. First, both newspapers responded to the actions and activities of different civil society organisations against the alleged perpetrators of environmental wrongdoings. These organisations, which often depended on the participation of experts in their activities, sued the government for its alleged inaction against the polluters, and against those in general who harmed the rivers. So, these matters had already been verified and publicly scrutinised through the court systems, and hence construed as newsworthy by the news media (Ericson et

al., 1989). Second, some of the activist-dominated items addressed general events in which the experts-cum-activists ‘called’ for the government to take immediate action to address certain problems. Although these call-related news items were not often verified, they “mandate[d]” (Tuchman, 1978, p. 134) river problems as a valid news hook, an issue of broader social concern raised and endorsed by activists.

Comparison of ‘second dominant’ sources pertinent to framing revealed use of similar frames but different sources in the portrayal of river systems issues. When degradation of rivers was the news topic in Australia, it was a case of farmers versus government and environmentalists (conflict frame) whereas in Bangladesh, it was bureaucrats against citizen sources (conflict frame). However, while the articles in the two Australian newspapers attributed responsibility for the unsustainable condition of the Murray-Darling Basin to different interests, in Bangladesh, the papers were united on this question. And, whereas *The Australian* held ‘government’ policy responsible for the poor health of the basin, *The Sydney Morning Herald* cited ‘economic’ exploitation. Both Bangladeshi newspapers held ‘economic’ exploitation primarily responsible for the ecological degradation of the Ganges-Brahmaputra river systems.

Summation of the analysis so far reveals that across the two countries: a) there were differences in the presence of dominant sources in the coverage of river systems; b) experts were cited more often in Australia whereas bureaucrats were prominent in Bangladesh; and c) experts were cited vis-à-vis legitimacy framing, and bureaucrats were used in conflict framing. In relation to my analysis of less dominant sources, while the results showed differences in the presence of less dominant sources, there were similarities in the framing of farmers as less dominant sources in Australia. In Bangladesh, citizens were cited in conflict framing in the newspapers’ coverage of river systems.

7.5 Climate Change and News Sources

When comparing news coverage related to global climate change policy, a broad similarity was found between Australia and Bangladesh, which saw prominence given to political sources, mainly due to the transnational nature of the issues (Tuchman, 1978; Hall et al., 1978; Ericson et al., 1989; Eide et al., 2009). In the Australian newspapers, political leaders (i.e., political sources) from developed and developing countries were positioned against each other in conflicting terms to highlight the disagreements between the rich and poor countries (conflict frame) over signing a global climate treaty. Such disagreements further reinforced the view that ‘other countries’ were responsible for the failure of climate change negotiations.

Similarly, Bangladesh, a peripheral force in the climate change negotiations (Eide & Ytterstad, 2011), also pointed a finger at ‘other countries’, holding them responsible for the failure of the talks. However, unlike in Australia, the newspapers in Bangladesh cited national political leaders in a ‘legitimacy’ frame in order ‘to promote’ the question of environmental justice. This view was campaigned for by the country’s leaders to influence the discussion via a recommendation regarding ‘climate refugees’, according to which climatically displaced people would be permitted to seek refuge in the developed countries (see Chapters 5 and 6). In effect, both newspapers in Bangladesh defined the terms of the international debate on climate talks by citing political sources.

The Australian newspapers, which perceived themselves as representative of one of the world’s developed countries, sought to influence the signing of a global climate deal. The Bangladeshi newspapers, which represent a small developing nation, demanded environmental justice from the rich countries that they held responsible for emissions across the globe, and for victimising innocent countries like Bangladesh with their relentless emissions (Giddens, 2011, pp. 182-183). In both countries, political sources were found to be verified less frequently than other principal sources. But, the extent to which verification was carried out was far less in Bangladesh. All four newspapers attempted to maintain positive coverage for their respective countries by providing uncritical space to their politicians, indicating the strength of the relationship between journalism and the particular nation states

in question (Anderson, 1997; Eide & Ytterstad, 2011). Curran's (2002) notion of a 'restricted prism' infers the degree to which news producers are inclined to focus on issues through the lens of the nation state and locality. Nonetheless, the news coverage of climate change was more globalised in Australia than in Bangladesh. In the case of the former, this was demonstrated by the positioning of sources from the third world versus first world political leaders (conflict frame) whereas in Bangladesh, the articles dominated by politicians were rarely verified. And, on occasions when they were, in fact, 'checked', this was achieved using other politicians from the same political party (legitimacy frame).

The relative lack of verification of political sources in Bangladesh gave rise to several queries. First, because Bangladeshi newspapers had limited access to influential sources at the Copenhagen Summit (Shanahan, 2006 & 2011), they reported mainly on specific *events*, rendering description of what happened was considered adequate. Second, Bangladeshi news media may have concluded that the issue of utmost significance was to inform its audience about Bangladesh's strong role in establishing the footprint of environmental justice (legitimacy frame).

Experts and bureaucrats were the second most frequently cited sources in both Australia and Bangladesh, a finding consistent with a single-nation study of the Bali Summit undertaken by Eide and Ytterstad (2011). Statements made by expert sources were verified more frequently in articles in *The Australian* than in *The Sydney Morning Herald*. Scrutiny of the experts' positions through the journalistic norm of verification was consistent with *The Australian*'s sceptical position on climate change (McKnight, 2010, Nash et al., 2009). Somewhat ironically, this scrutiny revealed how "journalism of verification" (Kovach & Rosenstiel, 2007) was applied to urge doubt about climate change issues in articles in *The Australian*. However, the most important difference between the two Australian newspapers' coverage lay in their denunciation or acceptance of the premise of scientific investigation. Articles in *The Sydney Morning Herald* accepted unconditionally the impact of anthropogenic climate change while its national counterpart portrayed the various manifestations of climate change as 'mere seasonal variations'.

In Bangladesh, items dominated by experts were verified a little more frequently in the English daily than in the Bangla paper. Unlike in Australia, both newspapers in Bangladesh strongly endorsed climate change as confirmed by numerous scientific investigations (Raupach et al., 2010). Expert-dominated sources, quantitatively very close to bureaucratic sources, were used to challenge (conflict frame) the findings of international climate research (e.g., Harmeling, 2009). The newspaper articles argued that the extent of Bangladesh's vulnerability had not been represented adequately, thereby exposing the differing viewpoints between the experts from developed and developing countries. The reasons for highlighting these differences between the experts of two different regions may be explained in two ways: 1) the experts attempted to establish Bangladesh's political position regarding the extreme vulnerability of this low-lying delta land; and 2) as suggested earlier, they also endeavoured to challenge 'Western eco-imperialism' whereby the developed countries tended to enforce their views on developing countries without first taking into full consideration the enormity and impact of the latter's different problems; for example, the impact of natural calamities on Bangladesh (Hannigan, 2006; Driessen, 2002).

So, to generalise, in Australia, the experts were cited in a legitimacy frame manifested in their strong support for climate change in articles in *The Sydney Morning Herald*, and in their strong doubt about anthropogenic climate change in *The Australian*. Conversely, experts cited in the Bangladeshi newspapers unanimously endorsed the government's political position regarding climate change. As well, the expressed unequivocal support for the scientific findings on climate change. Interestingly, these sources were only used in a conflict frame to contest the degree of vulnerability of the country.

While political and expert sources enjoyed significant prominence in the coverage of climate change, business, bureaucratic and activist sources were found to be less frequently cited in Australia, with both cited in relation to a conflict frame. The former was used in the disagreement between the different political leaders, both at home and abroad, over the proposed Emissions Trading Scheme and the Copenhagen Summit. In the case of business sources, the contestation was between businesses and others, e.g., the government and

environmentalists. Here, the articles in *The Australian* promulgated the proposed legislation to tackle climate change as the imposition of a ‘new tax’, an outcome which would not be cost effective for Australian business and could only lead to job losses. In contrast, the articles in *The Sydney Morning Herald* viewed the financial assistance package for carbon emitting industries as a huge financial setback for the federal government. So, while the first considered the issues to be an economic burden on the business community, the latter argued that the proposed assistance to industry would prove a burden not only for the Australian Government but the environment as well.

Significantly, in relation to other less frequently used sources, the Australian newspapers used activist sources whereas Bangladeshi publications used citizen sources to legitimise their respective positions regarding climate change. In other words, different sources were used in a similar (legitimacy) frame. However, in Australia, both newspapers legitimised their different positions on climate change by citing their sources expediently. In Bangladesh, the two publications used citizen sources to convey the impact of climate change on the country’s two traditional sectors, farming and fishing. The use of citizen sources reinforced the experts’ predictions about climate change in two different ways (see Chapter 2). While the articles in the English newspaper portrayed Bangladesh as a ‘climate laboratory’ wherein farmers were adapting well, the Bangla daily articles emphasised how the increasing rate of natural calamities was causing some traditional traders, such as fishermen, to lose their livelihoods. The use of the citizen source in the legitimacy framing suggests that the news media were attempting to reify the process of adaptation; that is, to show that Bangladeshis were not just sitting on their hands waiting for aid from the developed countries, but rather were quite actively mitigating climate change (Giddens, 2009).

In sum, the results revealed that in Australia and Bangladesh: (a) there were similarities in the use of political sources as the dominant source in the coverage of climate change; (b) there were differences in the framing of political sources. The newspapers in Bangladesh cited political sources in relation to legitimacy framing while the newspapers in Australia cited them in relation to conflict framing; and, (c) the newspapers placed similar emphasis on

expert sources but cited them in two different frames—conflict in Bangladesh and legitimacy in Australia. The findings also show that in relation to less dominant sources, while the Australian and Bangladeshi content cited two different sources, i.e., activist and citizen respectively, they cited them in the same legitimacy framing.

7.6 Implications

In the preceding sections, I have compared the use of sources in the coverage of climate change and river systems and found a diverse picture of the contrasting journalistic practices in the two countries under scrutiny. In Chapter 4, the context was set by laying out the prominence of issues in two dissimilar environmental contexts. Chapters 5 and 6 provided a detailed analysis of the journalistic strategies of the use of sources in relation to the framing of two crucial issues of public interest. These strategies, which were examined through verification of source statements, enabled an understanding of the significance of such a comparison of journalistic practices at various levels: Australia as an advanced industrialised country and Bangladesh as an economically less resourced nation. The goal of this study has been to compare the use of sources in newspaper coverage in Australia and Bangladesh across distinct local environmental news (river systems) and beyond the local limits of global environmental news (climate change).

7.6.1 Newspapers' Implicit Political Positions

This study's comparison of climate change coverage has demonstrated that politicians were used as dominant sources in both countries' content. However, this similarity in source use was not evident in the river systems news. Here, two different types of sources were dominant: experts in Australia and bureaucrats in Bangladesh. This pattern of source dominance indicates that the news media—as platforms for information dissemination—relied heavily on the “hierarchies of credibility” emanating from the authority of source institutions (Manning, 2001; Bennett, 2009; Eide et al. 2010; also see Chapter 3).

However, my analysis of the coverage showed the pattern of source dominance in stark contrast to that of the framing of sources. Although in the case of climate change, dominant sources were similar (politicians) in both countries, they were used in totally different framings. While the politicians in Australia were frequently presented in the ‘conflict’ frame, they were used predominantly in the ‘legitimacy’ frame in articles in Bangladesh to invoke ‘environmental justice’ (Nash, 1989; Hannigan, 2006, p. 46). This contrast suggests that the framing of sources is a “political strategic tool” (Entman et al., 2009) employed by publications to shape public dialogue surrounding the climate change issue and to give meaning to the diverse phenomena that emerge from the different political, media and environmental contexts explored in Chapter 2.

The difference in the framing of political sources may be due to the influence of a complex media system on journalists generally (see Chapter 2). News is always a joint production of journalists and sources. While journalists belong to particular media companies that together constitute a general media system, and sources belong to political organisations and other institutions that form the overall political system. The interaction between these two systems gives the content of news media its particular shape. Within these interactions, news media intervene in the political process according to their respective policy positions. Media policy positions in turn derive from the overarching political context of the society. The interrelation between these systems explains the respective newspapers’ environmental news policies. In the case of the current study, the pro-business stance of *The Australian* was its environmental news policy; and a strong pro-environment position was the news policy of *The Sydney Morning Herald*, *The Daily Star* and the *Prothom Alo*. Although the three newspapers seemed to have similar news policies, the sources in these publications were cited in different frames. In the articles from both Australian newspapers, sources were used to debate for and against climate change policies (conflict), whereas, in the articles in Bangladesh, sources were predominantly used to seek environmental justice (legitimacy).

7.6.2 Framing: Impacts and ‘Duelling Experts’

Many previous investigations into the news coverage of controversial scientific issues such as climate change, autism, intelligent design, and cloning (Boykoff & Boykoff, 2007; Grimm, 2008; Oreskes & Conway, 2010) showed that the news media primarily employed “dueling experts”, that is, experts from ‘both sides’ of a controversy irrespective of the validity of the respective experts’ views (Howard-Williams, 2009). However, a close examination of the articles (Chapter 4) in both of the Australian newspapers revealed that it was not ‘only’ the selection of invalid or untrustworthy sources, which engendered doubt about climate science; rather, it was the ways in which the articles—particularly in *The Australian*—interpreted the sources’ or experts’ observations. And the rendered climate change an “uncertain puzzle” (Zehr, 2000; Smith, 2005; Carvalho, 2005). So, the newspapers’ stances were different despite using similar types of sources.

These differences were also evident in the source analyses of climate change and river systems coverage during 2009 (see Chapters 5 & 6). The findings showed that expert sources were prominent in the items on river systems and comparatively less so in climate change issues. The lack of attention to expert sources in the coverage of climate change suggests that in the wake of the Copenhagen Climate Summit, politicians and other protagonists had taken over the public debate (Carvalho, 2007; Neverla, 2008). However, in order to clarify the public debate in Australia, in both instances expert sources were cited in the legitimacy frame which supported the respective positions of the newspapers (Weiler, 1983; Giddens, 2011; Schudson, 2006). The extent to which issues related to river systems were clarified through specialised expert sources was far more intense than in their coverage of climate change. In Bangladesh, unlike in Australia, expert sources did not receive any direct attention in the river system coverage in 2009. But, as discussed in Chapter 6, articles about the river system were significantly dominated by the expert-turned-activist sources. These patterns depicted the two nations’ respective press/media systems in microcosm.

Apropos of climate change, the newspapers in Bangladesh prioritised local experts' views about climate consequences over those of overseas experts and studies (e.g., with less emphasis on the German Watch report published during the study period). However, this priority was numerically insignificant. When these experts' views were considered in conjunction with the previously discussed 'accretion of land' issue, it may be asserted that the Bangladeshi newspapers actively participated in the politics of adaptation by portraying Bangladesh as a climatically vulnerable yet resilient country. Experts were also used to support the political position of the government of the day at the Copenhagen Summit. This usage raised questions about the benefit of having experts who may not be as independent as they should be (Schudson, 2006).

Perhaps the most important finding here was the contrasting ways in which different news media used similar scientific sources. 'Dueling experts' constitutes one aspect of this contrast. News media can use the same or similar sources to validate totally different positions. For example, while expert sources were used and interpreted in articles in *The Australian* to interrogate the efficacy of the government's proposed climate change policy, the same types of sources and quotations were interpreted in articles in *The Sydney Morning Herald* to strengthen the significance of said climate change policy. As expert sources were verified more often in articles in *The Australian* than in its fellow newspaper (see Chapter 5), it may be suggested that *The Australian* was professionally sounder than its counterpart (i.e., maintained a strongly critical gaze as a newspaper by scrutinising various assertions of its sources).

The twist in the whole affair is that the newspaper was still able to use this professionally sound practice to raise doubt about government environmental policies (e.g., the sharing of river water and emissions trading). Through its scrutiny, it framed expert sources to establish its own environmental stance and blamed natural causes and government policy for the degradation of river health. And, while arguably *The Sydney Morning Herald* offered lesser quality professional journalism (less verification/scrutiny of source statements), it nonetheless attested in its content the political position that climate change was a significant reason for

the degradation of the Murray-Darling Basin. Articles in this publication framed expert sources in such a way as to demonstrate the validity of the pro-environmental position. So, to this end, caution must be exercised when arguing lesser quality journalism in the pages of *The Sydney Morning Herald* and better quality in *The Australian* since the end outcomes were more or less the same. In this particular case, the so-called higher or lower standard of professional journalism did little to mitigate the influences of respective news organisations' political positions on the news coverage.

The problem of verification as a yardstick of the professional standard in journalism is also evident in the use of expert sources in the newspaper articles in Bangladesh. As the empirical data in the current study has indicated, while experts were used predominantly in the legitimacy frame in Australia, the conflict frame was generally used in Bangladesh. Through their use of expert sources, news articles in Bangladesh demonstrated the contestation between local and international experts vis-à-vis the climatic vulnerability of the country. Unlike in Australia, both of the Bangladeshi newspapers adopted a similar pro-environmental stance on questions of climate change and river issues; but they used different processes of verification.

From a common-sense point of view, it would seem plausible to assert that more scrutiny of source statements equals better quality journalism. Indeed, some scholarly literature (e.g., Kovach & Rosentiel, 2007) has endorsed this viewpoint. However, the quantitative data in this study has indicated that this would hardly be straightforward and/or simple. Seemingly higher quality news organisations may leave particular kinds of sources less scrutinised than others, depending on the process of representation by the particular news organisation. Thus, it seems hardly helpful to take various professional practices at face value as indicators of quality journalism. A more detailed and nuanced description is needed to provide a better picture of the complex interactions between the political positions and professional practices of news organisations.

To sum up the discussion so far, a comparison of expert sources showed that the newspapers in the two countries under scrutiny in this thesis used two different frames—legitimacy and conflict—to signify the debate surrounding climate change. The differences in framing suggest that media are a central part of political discourse presenting limited but “alternative ways of defining issues, endogenous to the political and social world” (de Vreese, 2005, p. 53).

7.7 General Conclusions: The Partial Newspapers

While the selection of statements from various sources, e.g., political, bureaucratic, expert and activist, confirms the significance of these voices in the framing of news or construction of perspectives, verification of these statements enables an examination of the extent of variability among different sources in Australia and Bangladesh. However, the professional ideology of ‘balance’ provides less than satisfactory service to journalism, particularly to environmental news, because in maintaining a so-called balance, journalists enhance the sceptics’ position to a disproportional level (Boykoff & Boykoff, 2004, & 2007).

The findings of this study reveal that the professional ideology of ‘scrutiny’ or ‘critical gaze’ is no “bulwark against bias” in journalism (Lichter et al., 1986). In fact, the professional practice of source scrutiny has had little impact on news media in stances regarding environmental questions. It matters little if a news organisation practises higher or lower quality journalism in terms of scrutiny: its news position is determined through the framing of sources and ultimately ends up toeing the political line to which it subscribes. This was clearly reflected in the conflict and legitimacy frames as well as in the selection of sources and their juxtaposition in favour of particular positions (e.g., pro-environmental and pro-business) in the construction of news content (see Chapters 5 & 6). This contention is crucial to any understanding of the degree to which news media are inclined to intervene in the internal political processes of various social and political institutions, and to exert ‘independent influence’ on said processes (Schudson 2002, p. 251). This became clear in both of the nation states studied.

A similar pattern in the presence of sources found in the comparison demonstrated a broad similarity of journalistic practice. The point here is neither to undermine the importance of professional ideology in journalistic practices, nor to pronounce news media biased when presenting less verified assertions of particular issues and frames. Rather, a concern of this study is to understand how greater scrutiny of certain sources and less of others in the process of verification engenders the possibility of sustaining certain positions adopted by the respective newspapers.

However, some cautionary notes are necessary here. First, this study does not suggest that news media are directly influenced by political strategies and policy decisions (Cook, 2005). Rather, it considers the significant impact of organisational influence on the production of news (Gans, 2003; Weaver & Löffelholz, 2008; Hanitzsch & Mellado, 2011, p. 406). This is why this study finds traces of ‘independent influence’ in the coverage of political issues whereby politicians are framed as portraying conflicting sides of an issue, and expert and activist sources are used expediently to legitimise the newspapers’ respective concerns about the environment and economy. This kind of ‘influence’ exerted by the media organisation on its news coverage is “increasingly independent from political parties” (de Vreese, 2001; Stromback & Dimitrova, 2006, in Binderkrantz & Green-Pedersen, 2009, p. 170). Yet, frequently news media endeavour to intervene in the broader frameworks of a society’s social, economic or political structures (van Dijk, 2002). And, as this study has shown, where climate change is concerned, this intervention can be subtle as well as blatant.

The manifestations of such ‘independent influence’ are quite varied in the Bangladeshi newspapers. In the case of climate change, the extent of ‘independent influence’ was found to be far less than the newspapers in Australia in terms of framing and verification because the newspapers’ pro-environmental positions were aligned with that of the government. However, in the coverage of the river system, the use of bureaucrats versus citizens and activists sources in a conflict frame indicated that the Bangladeshi newspapers did, in fact, try to exert ‘independent influence’ by highlighting the failure of the government to protect the rivers

from further degradation. In this way, the newspapers served the interest of the community (Carey, 2007; Nord, 2001) as opposed to the interests of authority.

The case in point here is the newspapers' different positions: 'concerned' and 'unconvinced' positions in the Australian content, and 'concerned' but with distinctive differences in the Bangladeshi articles (as discussed in Chapter 4). While *The Daily Star* articles viewed Bangladesh as a climatically adaptive nation the *Prothom Alo* content focused on scrutiny of the different powerful institutions in relation to environmental degradation. Verification of sources mattered less because irrespective of verification, the newspapers tended to select certain aspects of source statements and evaluate them in order to endorse and back their own stances regarding environmental issues.

However, this is not to imply that verification does not matter at all in the journalistic production process. Rather, verification is practiced expeditiously to strengthen certain positions held by particular newspapers. By rehearsing news about climate change and/or other issues, these continually reiterated positions, although not univocal, enact and maintain relationships between the journalists and their various constituents, e.g., owners, sympathetic political supporters, in fact, the majority of their readerships. The four newspapers in this study, through selection, framing and verification, bolster their respective organisations' ideological stances by "defining the range of meaningful, consensually unproblematic information that makes sense to readers without violating the journalists' habitual news-values" (Bell, 2013, personal communication). To readers exposed to one newspaper only, such partiality is likely to appear 'natural' and balanced, one of the reasons being that unlike researchers, readers do not have the advantage of comparing and systematically studying media content, either locally or internationally.

However, unilateral application of this conclusion (that newspapers establish their ideological positions while appearing to be professionally sound) could prove problematic. Thus, restraint and caution should be observed while extrapolating this assertion to other cases or

circumstances. What matters here are not specific positions adopted by the newspapers per se, but the diverse processes (such as selection, framing, and verification of sources) that journalists endure to reach and empower their readership.

This study, particularly its analysis of river systems and climate change, shows that ‘advanced western democracies’ media/press systems should not be assumed to serve their readers in more sophisticated ways than their counterparts in the so called development economies. Newspapers do not “reflect their readers” worlds: they help to maintain and/or change them. Comparative studies of journalism focused on well-defined, global and national crises show that professionalism and social responsibility may be found in even the most difficult economic environments. This is because news media must always serve two masters – the state (however indirectly) and the people (who they address directly) or they will fail. Drawing on the evidence of my thesis, I will suggest that Bangladeshi papers are as sophisticated and successful in these respects as their Australian counterparts.

Significance

A comparison of newspaper content from an economically advanced, industrialised, dispersedly populated “honorary Western country like Australia” (Curran & Park, 2000, p.3) with that of an agriculture-based, densely-populated country like Bangladesh has proven quite challenging albeit remarkably interesting. My comparison of these two vastly dissimilar countries not only identified several types of journalistic practices which deserve further detailed exploration, but also created platforms for further “theoretical sophistication” (Esser & Hanitzsch, 2012) in this area of investigation. In Journalism Studies, comparative research projects are relatively new and few in number. In comparative studies undertaken in this area, similarity of cases was common; and, West-centrism in the literature is well-recognised (Joseph, 2005) to the extent that Curran and Park called for a ‘de-Westernising’ of comparative media studies. Recently, Rodney Tiffen (2013), together with Curran and other colleagues from different parts of the world, argued to the effect that news practices differ

across varied national contexts. The findings of the current comparative study support these positions and contribute to this debate that challenges the unthinking generalisation of news practice in the context of advanced globalisation as a taken-for-granted assumption.

Finally, the limitations of this study should be acknowledged. First, my comparing of sources and framing has enabled a thorough examination of journalistic practices beyond single-nation studies. However, because the number of principal sources was not large, it was difficult to make generalisations about particular types of source use across the spectrum beyond the coverage of environmental issues. More principal sources should be included in a longitudinal study that would provide a wider variety of sources across time and space. Second, this study found some important aspects of the use of sources and the interpretation of them that add another dimension to the existing literature on ‘dueling experts’ in Australia. In Bangladesh, I found the possible influence of a shifting media system from a once dominant ‘politically oriented’ [‘socially responsible’?] to a ‘market-oriented’ model of journalism had the potential to raise questions about the established concept of ‘development journalism’ (Waisbord, 2009). These two findings undoubtedly have significance for both journalism and media studies. But, I could not exploit the full potential of these emerging issues, given that the focus of this study is on a comparison of the two countries in general. For this reason, I was unable to conduct deeper and micro-level analysis of said issues.

Future Research

In conclusion, it is my belief that this study has significantly widened the scope for future cross-national research into source selection, verification and framing processes within journalistic practice because it has established diverse national contexts as viable, realistic, conceptually and empirically rewarding study prospects. This widening of scope has the potential to develop a solid framework for comparing sources and the correlations between particular types of sources and their framing. The latter could also be examined in various media systems, a type of exploration that would provide the opportunity to reassess the

notion of news media in the 'Third World' as effective development agents, particularly in the rapidly changing media environment post-digitisation (Kleinstauber, 2012). Such scrutiny of journalism in cross-national contexts would benefit future scholars' understanding of the relationship between news media organisations and other social institutions in a more fulfilling and meaningful manner.

Appendices

Appendix 1: Pilot Study Coding Schedule

1. Newspaper Name

Values

1=*The Daily Star* (one of the prominent national English newspapers in Bangladesh)

2=*The Australian* (the widely-circulated national newspaper in Australia)

Item Date

Day, month and year of the published items in two newspapers

2. Tone of the intro/ Genre

Tone of the intro is the tone of different types of intro or lead paragraph of items on river issues in Australia and Bangladesh

Values

1= argument (the intro represents the positions of one side)

2 = balanced argument

3 = action (the intro emphasises the need for more work by government or other concerned parties to protect the rivers from further degradation)

4 = mobilising (the intro informs and motivates the public to engage in activities to protect the rivers)

5 = others (the intro focuses on other issues, such as speeches of politicians, press release or photo caption news)

3. Headline

Headline is defined as the title of an item about issues related to the selected river.

Values

1= literal (headline) intriguing (headline not directly indicating about the main theme of the item)

2 = oblique - telling (headline directly indicating about the main theme of the item)

3 = figurative (headline uses metaphor of figurative language not literal) mixed (headline which doesn't fall into either telling or intriguing categories)

4. Word Count

The total number of words in each item in two newspapers

5. Prominence

Values

1 = front page

2 = local page

3 = environment page/special section

4 = business page

6. Author

Author of the item origin designated in the by-line

Values

- 1 = newspaper's reporter with by-line.
- 2 = newspaper's reporter with Staff correspondent
- 3 = experts' opinion pieces in different sections of a newspaper
- 4 = anonymous editorial writers
- 5 = others such as press release
- 6 = news agencies

7. Information/Consequence

Consequence is defined as the extent of clarification about the issue in the coverage of river.

Values

- 1 = the item clearly explains the consequences of the item topic/issue
- 2 = the item to some extent explains the consequences of the item topic/issue
- 3 = the item does not at all explain the consequences of the topic/issue
- 4 = other, such as photo caption or press release

8. Scientific Context

Scientific context is defined as the presence of scientific evidence in the items.

Values

- 1 = the item contains government report or study (ministerial or parliamentary report)
- 2 = the item contains scientific study (such as CSIRO, BCSIR or other research report)
- 3 = the item contains non-government organisation report or activist report
- 4 = others

9. Political source

Political source is an individual politician or politicians who are making assertions in support or against the main theme of the item.

9. Official source

Official source is the officials (e.g. bureaucrats) from different government departments who are making statements in support or against the main theme of the item.

10. Expert source

Expert source is an individual expert (academic, scientist) on river, water or climate issue who is making statements supporting or opposing the main theme of the item.

11. Activist source

Activist source is an individual activist (e.g. non-government organisation working for climate change or aboriginal activist trying to protect their land) who is making statement supporting or opposing the main theme of the item.

13. Lay source

Lay source is an individual who has experienced or witnessed some aspects of the item issues and making statement supporting or opposing the main theme of the item.

14. Other source

Other source is an individual who is making statement supporting or opposing the main theme of that item, but does not fall into any of the above categories (e.g., anonymous source)

15. Attribution/Responsibility

Responsibility in an item is the attribution of responsibility to a person, organisation or reason who/which may be accountable for a particular condition of the river/s

Values

- 1= national government is responsible for the river condition/issue
- 2 = other state/s or country/ies are responsible for the condition/issue
- 3 = national politicians are responsible for the river condition/issue
- 4 = global climate change is responsible for the river condition/issue
- 5 = economic exploitation is responsible for the river condition/issue
- 6 = others are identified as responsible/not clearly identified

16. Scrutiny/Checked

Checked is determined by the number of statements in the item checked by the journalist/s or author/s. Veracity and truthfulness of many statements in news stories or media items is checkable; in this category, whether journalists checked them or not would be examined.

Values

- 1= no statement about the river issues is checked
- 2 = few statements about the river issues are checked
- 3 = most of the statements about the river issues are checked
- 4 = checking is not applicable in the item (e.g. press release, photo caption)

17. Uncheckable

Values

- 1 = most statements are uncheckable
- 2 = few statement are uncheckable
- 3 = no statements are uncheckable
- 4 = not applicable in letters comments

18. Textual source

Values

- 1= political speech by the politicians on different issues about river
- 2 = seminar or discussion meeting about the river issue
- 3 = research-based or investigative piece of reporting
- 4 = spot coverage by the journalist
- 5 = press release about certain river issue
- 6 = legal action by community or activist groups against the polluters of the rivers
- 7 = public activities (rally, meetings by various organisations) relating to the river issues
- 8 = public enquiries/investigations about the river issues
- 9 = natural disasters (e.g., flood, erosion of embankment of river)
- 10 = agriculture or business
- 11= others (item source is not clearly identified in the item)

19. Item type

Item type identified by the researcher as the kind of a selected item

Values

- 1= news
- 2 = feature
- 3 = editorial
- 4 = commentary
- 5 = others (press release etc.)

20. Item topic

The topic of an item is the subject matter which has been prominently featured in the selected item

Values

- 1= politics about river issue (i.e., political statements made/opinions expressed; political decisions declared/actions taken etc.)
- 2 = climate change and its impact on the river systems
- 3 = human consequence (the impact of human activities on the river systems).
- 4 = human actions (communities' attempt to protect the river systems)
- 5 = business (the economic impact of changing river systems on businesses/agriculture)

21. Tone/Item orientation

Values

- 1= positive (overall representation of the river issues in the item is positive)
- 2 = negative (overall representation of the river issues in the item is negative)
- 3 = mixed (overall representation of the river issue in the item is not exclusively positive or negative; rather both)

22. Origin/whose activity

Values

- 1= political speech
- 2 = meeting/seminar
- 3 = research based story
- 4 = spot
- 5 = press release
- 6 = legal action
- 7 = environmental or non-governmental
- 8 = public enquiries
- 9 = natural disasters
- 10 = agriculture /business
- 11= others

Appendix 2: Refined Coding Schedule for the Content Analysis

1. Newspaper Name

Values

- 1=*The Australian* (the widely-circulated national newspaper in Australia)
- 2= *The Sydney Morning Herald* (the widely circulated newspaper in Sydney)
- 3=*The Daily Star* (a prominent national English newspapers in Bangladesh)
- 4= *The Prothom Alo* (a prominent national Bangla newspapers in Bangladesh)

2. Item Date

Day, month and year of the published items in two newspapers

2. Word Count

The total number of words in each item in two newspapers

4. Prominence

Values

- 1= Front page
- 2 = local page
- 3 = Environment page/special section
- 4 = Business page

5. Item Author

Author of the item origin designated in the content

Values

- 1 = newspaper's own reporter (mentioned with by-line)
- 2 = newspaper's own reporter (mentioned as anonymous Staff Correspondent)
- 3 = expert opinion pieces
- 4 = anonymous editorial writers
- 5 = others, such as press release
- 6 = news agency

6. Principal source

A principal source is an individual news source (e.g. politicians, bureaucrats, experts or citizens) who provided important information/statements in support of or against the main theme of the item.

Values

- 1 = politicians
- 2 = business persons
- 3 = bureaucrats
- 3 = scientists
- 4 = citizens
- 5 = other organisations/activists
- 6 = experts

7. Political Source

A political source is an individual politician or politicians who made assertion/s in support of or against the main theme of the item.

8. Bureaucratic Source

A bureaucratic source is the official/s (e.g. bureaucrats) from different government departments who made statement/s in support of or against the main theme of the item.

9. Expert Source

An expert source is an individual expert (academic, scientist) on river, water or climate issues who made statement/s supporting or opposing the main theme of the item.

10. Activist Source

An activist source is an individual activist (e.g. non-government organisation working for climate change or aboriginal activist trying to protect their land rights) who made statement/s supporting or opposing the main theme of the item.

11. Citizen Source

A lay source is an individual who has experienced or witnessed some aspects of the issues pertaining to the item and made statement/s supporting or opposing the main theme of the item.

12. Business Source

A business source is an individual who has experienced some aspects of the economic issues and made statement/s supporting or opposing the main theme of the item.

13. Other Sources

An other source is an individual/s who made a statement supporting or opposing the main theme of that item, but does not fall into any of the above categories (e.g., an anonymous source).

14. Attribution of Responsibility

Responsibility in an item is the attribution of responsibility to a person, organisation or reason who/which may be accountable for a particular condition of the river/s.

Values

- 1 = national government is responsible for the river/climate change issue
- 2 = other states/countries are responsible for the river/climate change issue
- 3 = national politicians are responsible for the river and climate change issue
- 4 = global climate change is responsible for the river issue/changing climate
- 5 = economic exploitation is responsible for the river and climate change issue
- 6 = others are identified as responsible/not clearly identified

15. Verification of Statement

Verification is when the journalist/author of an item checked the veracity of different source statement/s with other sources or logical argumentations. Whether an entire article is adequately verified or not was determined by the number of statement/s verified in this manner.

Values

- 1 = few statements about the river system/climate change issues are checked
- 2 = no statement about the river system/climate change issues is checked

16. Item Type

Item type identified by the researcher as the kind of content of the selected item

Values

- 1 = news
- 2 = feature
- 3 = editorial
- 4 = commentary
- 5 = other (press release etc.)

17. Item Topic

The topic of an item is the subject matter which has prominently featured in it

Values

- 1 = politics about river issue and climate change
(political statements/opinions, declaration of relevant political decisions/actions)
- 2 = Impact of the changing climate on river systems and the environment
- 3 = economic consequence
(impact of economic activities on river systems/climate change and vice versa)
- 4 = doubt about the impact of climate change
- 5 = others (an incidental mention of river systems or climate change)

18 .Tone /Item orientation

- 1= positive (overall representation of the river issues in the item is positive)
- 2= negative (overall representation of the river issues in the item is negative)
- 3= mixed (overall representation of the river issue in the item is not exclusively positive or negative; rather both)

Appendix 3 Newspapers' Coverage

3.a Type of the articles: Climate Change and River Systems Australia

Table 3.1: Article Type -Climate Change Australia

Newspaper	News	Feature	Editorial	Commentary	Others	Total
<i>The Australian</i>	430 (41.43%)	105 (10.11%)	61 (5.88%)	356 (34.30%)	86 (8.29%)	1038
<i>The Sydney Morning Herald</i>	300 (46.51%)	83 (12.87%)	31 (4.81%)	180 (27.90%)	51 (7.90%)	645
Total	730 (43.37%)	188 (11.17%)	92 (5.47%)	536 (31.85%)	137 (8.14%)	1683

Table 3.2 Article Type - River Systems Australia

Newspaper	News	Feature	Editorial	Commentary	Others	Total
<i>The Australian</i>	81 (40.70%)	41 (20.60%)	6 (3.01%)	48 (24.12%)	23 (11.56%)	199
<i>Sydney Morning Herald</i>	44 (42.30%)	23 (22.11%)	3 (2.88%)	21 (20.19%)	13 (12.5%)	104
Total	125 (41.25%)	64 (21.12%)	9 (2.97%)	69 (22.77%)	36 (11.88%)	303

The newspapers' coverage in Australia shows that more than half of the articles on climate change and river systems were 'news' and 'features'. These were followed by 'commentary', 'editorial' and 'others.' A further analysis of numbers reveals that the share of commentary and editorial was comparatively higher in the coverage on climate change than on the river systems. Commentary and editorial on climate change comprised 37 per cent of the articles whereas in the case of river systems the figure was 25 per cent. If commentary and editorial can be equated to fewer news sources compared to actual 'news' articles, then these figures clearly indicate a use of fewer sources by the Australian newspapers in the coverage on climate change.

3.b Type of the articles: Climate Change and River Systems Bangladesh

Table 3.3: Article Type Climate Change Bangladesh

Newspaper	News	Feature	Editorial	Commentary	Other (PR)	Total
<i>The Daily Star</i>	180 (58.44%)	7 (2.27%)	11 (3.57%)	64 (20.78%)	46 (14.93%)	308
<i>The Prothom Alo</i>	133 (56.60%)	30 (12.76%)	6 (2.55%)	44 (18.72%)	22 (9.36%)	235
Total	313 (57.64%)	37 (6.81%)	17 (3.13%)	108 (19.89%)	68 (12.52%)	543

Table 3.4: Article Type River System Bangladesh

Newspaper	News	Feature	Editorial	Commentary	Other (PR)	Total
<i>The Daily Star</i>	88 (56.41%)	6 (3.85%)	6 (3.85%)	30 (19.23%)	26 (16.66%)	156
<i>The Prothom Alo</i>	226 (59.95%)	83 (22.02%)	18 (4.77%)	26 (6.89%)	24 (6.36%)	377
Total	314 (58.91%)	89 (16.70%)	24 (4.50%)	56 (10.50%)	50 (9.38%)	533

In the coverage on both river systems and climate change, ‘news’ and ‘feature’ type articles were significantly high in number. While this was generally true, it was also evident that *The Daily Star* in particular contained a high percentage of ‘commentary’ articles on climate change while the *Prothom Alo* published more ‘feature’ articles in the coverage on river systems in Bangladesh. This raises questions about the practice of scrutiny in Bangladesh’s journalism, which is considered by many a fundamental pillar of journalism.

3c Article Orientation Australia

Table 3.5: Article Orientation Climate Change Australia

Newspaper	Positive	Negative	Mixed	Other	Total
<i>The Australian</i>	295 (28.42%)	390 (37.57%)	301 (28.99%)	52 (5%)	1038
<i>The Sydney Morning Herald</i>	216 (33.49%)	189 (29.30%)	194 (30.07%)	46 (7.13%)	645
Total	511 (30.36 %)	579 (34.40%)	495 (29.41%)	98 (5.82%)	1683

The orientation toward climate change has been considered here as the overall representation of the issue of climate change in the news coverage. This has been divided into four categories, that is, positive, negative, mixed and others. *The Australian* had more negative articles on climate change than positives, while *The Sydney Morning Herald* had more positive coverage on climate change than negative or neutral. However, the characteristics of the negative articles were quite different in the two newspapers from July to December 2009. In relation to a negative orientation towards policy dealing with climate change, articles in *The Australian* showed a particularly negative orientation towards policy related coverage on climate change. On the other hand, *The Sydney Morning Herald* took a positive stance towards policy dealing with climate change, but it portrayed a negative stance towards the potentially severe impact of climate change on our society and environment. Both the newspapers had a significant quantity of mixed and other articles. The mixed articles focused on different national and international events while the ‘other’ articles were less relevant to the issue of climate change.

Table 3.6: Article Orientation River Systems Australia

Newspaper	Positive	Negative	Mixed	Other	Total
<i>The Australian</i>	40 (20.10%)	70 (35.17%)	55 (27.63%)	34 (17.08%)	199
<i>The Sydney Morning Herald</i>	12 (11.53%)	39 (37.50%)	24 (23.07%)	29 (27.88%)	104
Total	52 (17.16%)	109 (35.97%)	83 (27.39%)	63 (20.79%)	303

The river system coverage revealed the extent of negative orientation towards the representation of river issues in which *The Australian* (35.17 per cent) and *The Sydney Morning Herald* (37.50 per cent) was almost similar. However, articles with a positive orientation outweighed articles with a negative orientation. Here again, the nature of the negative stance in regard to river system issues was found to be different in these two newspapers. Both *The Australian* and *The Sydney Morning Herald* were broadly positive about the Rudd Government's policy initiative to revive the Murray-Darling basin, which brought four states in the basin area together to sign a historic deal on water sharing. However, the articles in *The Australian* took a stand against the taxpayer-funded water buy-back scheme, whereas *The Sydney Morning Herald* supported the scheme but still took a negative stance because the newspaper held the view that the scheme was not adequate to rescue the dying Murray-Darling system. In addition to this, articles with a negative orientation also portrayed the view that climate change was not responsible for the deterioration in the condition of the Murray-Darling; rather this deterioration could be attributed to the inherent weather pattern of this dry and arid continent.

In this regard, it may also be worth considering *The Sydney Morning Herald's* stance on irrigation and sustainable river systems, in which the newspaper coverage painted a predominantly grim picture about heavy use of water from the Murray-Darling and its future consequences for the basin states. The above description of various orientations to river systems and climate change in these two newspapers provides an opportunity to further explore this orientation in relation to different topics on these two issues in the following chapters.

3d Article Orientation Bangladesh

Table 3.7: Article Orientation River Systems Bangladesh

Newspaper	Positive	Negative	Mixed	Total
<i>The Daily Star</i>	41 (26.28 %)	74 (47.43 %)	41 (26.29 %)	156
<i>The Prothom Alo</i>	55 (14.59%)	261 (69.23%)	61 (16.18%)	377
Total	96 (18.01%)	335 (62.85%)	102 (19.13%)	533

Table 3.8: Article Orientation Climate Change Bangladesh

Newspaper	Positive	Negative	Mixed	Total
<i>The Daily Star</i>	95 (30.84%)	109 (35.39%)	104 (33.76%)	308
<i>The Prothom Alo</i>	65 (27.66%)	107 (45.53%)	63 (26.80%)	235
Total	160 (29.46%)	216 (39.78%)	167 (30.75%)	543

In the coverage on climate change and river systems, the *Prothom Alo* published more articles with a negative orientation than *The Daily Star*. In the *Prothom Alo*, the ratio of such articles on climate change and river systems was 45.53 per cent and 69.23 per cent respectively, whereas in *The Daily Star* the percentages were 35.39 and 47.43 respectively. The negative stance mainly focused on the vulnerability of the environment and the helplessness of people confronting natural calamities and human-induced damage to rivers which resulted in relentless degradation of rivers along with broad ecological systems.

The positive orientation towards river systems and climate change focused on political actions and speeches to salvage the rivers from the perpetrators of environmental damage, and at a later time on international recognition of the vulnerability of Bangladesh in the wake of potential climate disasters. The mixed articles, which accounted for almost a quarter of the articles, were mainly concerned with demands for action to save communities from adversities related to rivers, such as pollution, broken embankments, water-logging and salinity in the coastal mangrove forest areas and other low-lying agricultural lands. In general these were occurring as a result of the rise in sea level.

Appendix 4a: Below are the headlines about water-sharing deal

Federal –State liaisons: new front line of reform

(The Sydney Morning Herald, 29 March 2008)

History making deals shares rivers – Rudd’s new Federalism

(The Australian, 27 March 2008)

The positive coverage given to the deal was manifested in the use of certain phrases, such as “Federal-state liaison” and “New Federalism” in relation to signing a ‘history making’ water sharing deal under the leadership of the then Labor prime minister Kevin Rudd. The following headlines provide instances of such positive coverage:

Appendix 4b: Despite the positive stance regarding the signing of the deal, the two newspapers demonstrated negative stance towards the impact of government’s policy on the river systems, in which the newspapers took the position that the actual availability of water was not considered:

Water theft threatens \$10b Murray rescue

(The Sydney Morning Herald, 25 February 2008)

Murray rescue plan attacked as ‘too cheap’

(The Australian, 2 June 2008)

Water buyback won’t deliver

(The Australian, 24 May 2008)

The use of phrases such as ‘too cheap’ and ‘won’t deliver’ in relation to water buyback in the headlines of the *Australian* are evidence of a negative orientation towards the government initiative. In a similar manner, the intro of the *The Sydney Morning Herald* showed the masthead doubted the potential of the Murray-Darling agreement, but identified the farming communities as responsible for any potential failure.

Appendix 4c: The headlines related to the Garnaut Report

Adapt or Perish - The Garnaut Ultimatum (*The Sydney Morning Herald*, 5 July 2008).

All nations should heed Garnaut (*The Sydney Morning Herald*, 7 July 2008).

Professor wrong on fuel: Nelson (*The Australian*, 5 July 2008).

Huge job ahead for PM to sell climate plan pain (*The Australian*, 4 July 2008).

The Sydney Morning Herald's headlines and intros questioned the range of evidence used in the Garnaut report, especially the precise nature of predictions which envisaged 1,276 Queenslanders would die because of temperature induced illness every year.

Appendix 4d: The *Sydney Morning Herald's* emphasis on the ecological health of river systems. One instance was the item titled '**Disused mine leak is killing life in river**' (*The Sydney Morning Herald*, 5 May 2008).

The headline below is also indicative of how the other newspaper presented the economic topic in the coverage of Murray Darling River system

Farewell to access (*The Australian*, 14 January 2008)

Article in *The Australian* gave prominence to the immediate issue surrounding the wine industry, i.e. how dwindling water supply was affecting the wine industry without highlighting the reason for this decreasing water supply. This broadsheet also argued that the water-intensive industries, such as farming and wine growing were going through a 'paradigm shift' in terms of the availability of water in future. Yet, the paper did not raise any questions about the impact of such water-intensive activities on the ecological health of the river systems in Australia.

Appendix 4e: Below are some headlines which epitomised the *Sydney Morning Herald*'s proactive position regarding climate change:

Murray-Darling Starved

(The Sydney Morning Herald, 11 October 2008)

World concerned at ailing Murray

(The Sydney Morning Herald, 22 October 2008)

Hopes fall as heat rises

(The Sydney Morning Herald, 8 November 2008)

Grim outlook for basin as water flows at all time low

(The Sydney Morning Herald, 11 July 2008)

Appendix 4f: The items in *The Australian* were predominantly based on CSIRO, BOM and WGCs reports. According to CSIRO researchers Dr. Wenju Cai and Dr. Tim Cowan:

Waiting for rain in vain *(The Australian, 29 March 2008)*

Dry future well ahead of schedule, *(The Australian, 7 June 2008).*

The CSIRO investigation also found that there had been a 40 percent reduction in autumn rainfall in Victoria since 1950. However, the report was cautious about portraying a causal link between rainfall reduction and climate change.

Appendix 4g: According to *The Australian*, the only achievement of this G8 summit was the declaration of carbon capture, introduced by former Prime Minister Kevin Rudd, whose country was even not a member of the G8.

In some ways the carbon capture institute idea, launched internationally in L'Aquila probably because it has already been launched domestically a couple of times (and is, in fact, already operating), is itself a product of the meaningless wordiness of G8 promises. The Hokkaido G8 signed up to a goal of developing at least 20 industrial-scale carbon capture and storage plants by 2020 (**G8's hollow ring perfect spring for an old ideas**, *The Australian*, 11 July 2009).

The use of the phrase 'meaningless wordiness' in the above excerpt, evokes a sense of such an international gathering as being trivial, yet 'carbon capture' was labelled as the only 'achievement' initiated by the Australian Prime Minister.

Appendix 4h: Referring to the Indian Prime Minister Manmohan Singh’s action plan on climate change, one item in *The Sydney Morning Herald* reported,

everyone in the world deserved “an equal share of the planetary atmospheric space” and a “convergence” of per capita emission was the only equitable basis for a global compact. The average Indian is responsible for a fraction of the greenhouse gas emissions of the average Westerner (**Don't leave sacrifices to us, say Indians**, *The Sydney Morning Herald*, 10 July 2009).

In this conference, the world leaders including China’s President Hu Jintao and US President Barack Obama began to clarify their respective country’s strategies and measures to slash down greenhouse gas emissions by 2020 (**Question marks as Hu's UN statement falls short** (*The Australian*, 24 September 2009).

Although China was the centre of attention, the *Australian* focused heavily on PM Kevin Rudd’s ‘grand bargain’ proposal to the UN secretary Ban Ki Moon. The proposal called for collaboration between developed and developing nations in order to negotiate a deal, albeit with an indication that the developing countries needed to slow their growth in tackling emissions (**Rudd calls for grand bargain between developed and developing nations**, *The Australian*, 23 September 2009).

Appendix 4i: the opinion pieces in this newspaper adopted a different position. They termed the world leaders' optimism about climate deal as 'smart politics' in a context in which science might not be fully convinced about anthropogenic warming of the globe (**Warming to a deal**, *The Australian*, 23 September 2009).

Diplomatic global warming, (*The Sydney Morning Herald*, 24 September 2009).

Appendix 4j: *The Australian* raised questions about the justification of referring to climate aid as an 'adaptation fund'.

Taking heat over the cash (*The Australian*, 28 November 2009).

Poor countries fear rich want a free ride on climate funding (*The Australian*, 28 November 2009).

The Sydney Morning Herald 's article about the World Bank's report

World Bank tells rich to pay their climate damage bill (*The Sydney Morning Herald*, 16 September 2009).

Appendix 4k: Below are the headlines from *The Australian* about the Opposition's leadership battle

Malcolm pays the price for mayhem (*The Australian*, 30 November 2009).

Nat demands policy rethinks (*The Australian*, 1 December 2009).

Turnbull tolls won death knell (*The Australian*, 2 December 2009).

Sensible skepticism can bring the electorate around (*The Australian*, 2 December 2009).

On the road to oblivion (*The Australian*, 11 November 2009).

Three events are on display: looming failure at the Copenhagen conference to strike a new treaty, the apparent inability of the US congress to carry its emissions trading scheme bill in the near future and a drift in the urgency of domestic support for climate change action. They are combining to make it harder for the opposition to pass the Rudd government's ETS policy.

Inconvenient truth: it's a high price for nothing (*The Sydney Morning Herald*, 25 November 2009).

A compromise on a compromise (*Sydney Morning Herald*, 25 November 2009).

Appendix 4l: A number of opinion pieces including an editorial in *The Australian* demonstrated some reservations concerning the agreed upon ETS between the government and the opposition. In these articles this newspaper portrayed the ETS as an unfair business policy which offered concession to some sectors such as electricity, agriculture and not others (e.g. hospitality, tourism).

Cold shoulder from business - ETS showdown (*The Australian*, 25 November 2009).

Farmers may be bankrupted by carbon reduction plan (*The Australian*, 2 October 2009).

Manufacturers lead way on measuring their emissions (*The Sydney Morning Herald*, 21 July 2009).

The Sydney Morning Herald article revealed how the industries was attempting to slow down the process of the ETS

Pollution pays off for billionaire (*The Sydney Morning Herald*, 12 July 2009).

Warriors at the coalface (*The Sydney Morning Herald*, 10 November 2009).

Renewable too costly (*The Australian*, 22 July 2009).

This article is about the introduction of nuclear power in tackling carbon emission.

The Nuclear merry-go-round (*The Sydney Morning Herald*, 14 October 2009).

This article implicitly supported “nuclear power to reduce our carbon foot print”. This was not to suggest that Fairfax was directly endorsing the business community’s call; rather it justified its support for nuclear power in reference to an ‘open minded mood among the populace’ revealed in the Herald/Nielson poll.

Appendix 4m: A case in point here was a report that argued that the government's prediction about rising sea level 'is a touch exaggerated.'

Sea levels on Australia's eastern seaboard are rising at less than a third of the rate that the NSW government is predicting as it overhauls the state's planning laws and bans thousands of landowners from developing coastal site (**Science is in on sea-level rise: 1.7mm**, *The Australian*, 7 November 2009).

As can be understood from the above excerpt, this report did not completely deny the rise in sea level, but attempted to convey that the NSW Government was overreacting to the issue of climate change. However, on the same day coverage in Fairfax report suggested a sense of severe concern in relation to rising sea level (**Lakeside homes face greater sea-level threat**, *The Sydney Morning Herald*, 7 November 2009).

Appendix 4n: Below are the headlines related to the impact of river erosion in the two newspapers in Bangladesh:

Erosion in the Gorai - 5 thousand families homeless

(*Prothom Alo*, 8 November, 2008).

‘Padma erosion: 500 penniless families at Bagha couldn’t find any shelter in a month’ (*Prothom Alo*, 6 September 2008).

This article clearly epitomised the grim picture of the post-erosion scenario in regional areas. It explicitly articulated the misery of ‘helpless victims’ who were in the hands of ‘powerful people and touts’ who exploited the Act in an unscrupulous manner to deprive the needy and rightful owners of land

River erosion to make 29,000 homeless by next one year: Study

(*The Daily Star*, 29 April 2008).

CA pledges permanent solution to river erosion

(*The Daily Star*, 8 September 2008).

The newspaper used strong language to describe the plight of hundreds of wandering families who were rendered ‘penniless’ and living ‘without shelter’

In an opinion piece *The Daily Star* also shed light on the reasons behind the agony of erosion victims by exposing legal inefficiency and administrative failure to provide adequate assistance to the victims:

Ironically, the vast majority of river erosion victims do not get the support of Diluvion-Alluvion Act that was adopted on June 28, 1972 and amended in 1994, for helping the helpless victims of river erosion to get back to their land lost by erosion. Only the powerful people and some touts are getting benefit of the Act in grabbing such lands in exchange of bribes to land-office men (**By the numbers, Rivers ravage**, *The Daily Star*, 14 July 2008).

Appendix 4o: Below are the examples of headlines that appeared in the two newspapers on the topic of embankment.

10 villages will be inundated if the embankment isn't repaired

(Prothom Alo, 2 January 2008).

Unplanned embankment and sluicgate cause water logging at Betagi

(Prothom Alo, 27 April 2008).

Solutions to floods: New Paradigm needed

(The Daily Star, 11 October 2008).

This opinion column included a statement by an expert and activist from the Bangladesh Environment Network (BEN), who said:

... India has built over 3000 km of embankments in Bihar over the last few decades, the flooding propensity has increased by 2.5 times during the same time period, not to mention that embankments failed during each major flooding event. Embankments provide false sense of security to people living behind them. It has been proved time and again that no matter how strong the embankments are, and no matter who builds them (US, India, the Netherlands, China, Bangladesh, you just name it) they are destined to fail (*The Daily Star*, 11 October 2008).

Appendix 4p: Below are the examples of economic exploitation of river systems

Losing Turag to grabbers (*The Daily Star*, 11 July 2008).

River grabbers seeking nominations from Grand Alliance
(*Prothom Alo*, 3 December 2008).

Appendix 4q: Below are the headlines related to Tipaimukh Dam

Proposed Tipaimukh Dam: the quest for everlasting national interest of India and Bangladesh (*Prothom Alo*, September 7, 2009).

This is one of the articles which was published as part of series of opinion pieces (three parts) was outlined by a former bureaucrat in the *Prothom Alo*. This series published during September epitomised the water politics in the South Asian region and the unprecedented potential consequences of constructing a dam in such a densely populated region of the world.

Muddying the waters (*The Daily Star*, 4 July 2009).

This article finely portrayed the reality of impending climatic hazards by incorporating views from local residents in the would-be affected region and experts from both sides of the border.

Appendix 4r: The *Prothom Alo* argued that this small nation was in a ‘climate crossfire’

Bangladesh is in climate crossfire (*Prothom Alo*, 3 October 2009, front page).

Below is the English daily article emphasised the need for appropriate government policy

Frame pro-people policies to conserve forests (*The Daily Star*, 9 August 2009).

While the *Prothom Alo* made explicit the rapid depletion of forests and its impact on bio-diversity and climate change, the coverage in *The Daily Star* highlighted different aspects of the economic exploitation of natural resources by reporting on the calls for protection and conservation of the forests across the country.

Appendix 4s: The article demonstrate the paucity of climate change related resources and vulnerability of this country due to climate change

SAARC states lack of info on climate change (*The Daily Star*, 10 July 2009).

Birth control data paints a grim picture (*The Daily Star*, 11 July 2009, front page).

In the above article, the English daily cautiously anticipated that if population control were to fail then Bangladesh could easily encounter West African-style turmoil due to a climatic change induced food crisis. It also pointed out that despite government efforts for nearly three decades it had not been able to lower the birth rate to the targeted 2.2 percent.

Below are the articles appeared in the *Prothom Alo* regarding the impact of increasing population in Bangladesh:

Food crisis: When increasing population threatened food security

(*Prothom Alo*, 19 September 2009).

In the following article, the Bangla daily argued that technological innovation such as high yielding varieties of crops would not be a panacea in a country of 160 million people without strong population control measures.

Human Wave [Manush aar Manush] (*Prothom Alo*, 12 December 2009, front page).

Within five months of the publication of this report, the *Prothom Alo* also carried out a series of investigative articles which shed light on the impact of increasing population.

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