

**Print Media Coverage of Climate Change: why environmental organizations should care, and what they can do to achieve greater coverage**

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## **Vita**

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## **Executive Summary**

The mass media is a powerful tool that has been and can continue to be used to effect social change. Global climate change is the most important and most salient environmental issue of the present time. While environmental organizations already actively attempt to use the mass media in order to educate more people about climate change and other environmental issues, there are ways in which they can improve their media communications strategies. This research asks how environmental organizations can increase mass print media coverage of global climate change. I answer this question by analyzing how environmental groups currently engaged print media outlets as well as how the mass media currently portrays and explains climate change.

In order to inform my print media analysis, I first conducted interviews with media officers from a variety of environmental organizations. I then conducted a print media analysis study. This comprehensive analysis revealed the following themes: 1) certain authors are writing many of the articles, 2) climate change is explored in US-centric ways, 3) articles about climate change are political in scope and frame, 4) climate change is portrayed as a complex issue, 5) articles mention different causes of climate change, 6) articles mention different results of climate change, 7) articles about climate change mention stakeholder groups very frequently, often mentioning similar groups (like environmental organizations) interchangeably, 8) articles mention the names of politicians frequently, and 9) solutions to climate change are directed towards politicians. This research concludes that environmental organizations can effect still greater media coverage of climate change by working together more often and focusing on presenting climate change in politically-relevant ways.

## **Chapter One: Introduction**

Global climate change is the most important environmental issue the world is currently facing. The mass media can be used as a tool to further the environmental movement, as it has been used as a tool to further important social movements throughout history. This thesis analyzes the relationships already existent between environmental organizations and mass media outlets as well as the trends prevalent in current print media coverage of global climate change. The goal of this thesis is to offer specific recommendations to environmental organizations about how they can more fully harness the power of the mass media to more efficiently educate the public and effect greater environmental concern and responsible action. It is my hope that this greater mass media coverage will lead to greater public understanding of the issue of climate change, which will ultimately lead to greater individual and political action taken to halt the causes and remediate the effects of global climate change.

### **The research question**

The primary research question driving this thesis is how environmental organizations can increase the quality and quantity of print media coverage of climate change. Within this broader context, this research asks two specific questions. First, what is the current status of the relationship between environmental organizations and mass print media outlets. Second, what are the current trends in print media coverage of climate change. Using the answers to these questions, this research concludes with recommendations, geared towards environmental organizations, about how they can effect greater print media coverage of climate change.

## Global climate change and print media

Global climate change refers to the variation in the earth's global temperature and regional weather patterns over time. This variation can be due to forces internal to the earth, like changes in geothermal activity, forces external to the earth, like changes in solar activity, or human activity (Dunlap & Michelson, 2002). Global climate change is also referred to as "global warming," or simply "climate change." The effects of climate change are often referred to as "global environmental change." The term global environmental change is used to refer to the "three interrelated transformations of the biosphere: climate change, loss of biodiversity, and depletion of stratospheric ozone" (Dietz & Rosa, 2002, p. 370). For the sake of consistency, these phenomena are referred to throughout this thesis by their broad blanket term of "global climate change," or "climate change."

Scientists have been concerned about global climate change, specifically about global climate change as a result of human activities, since the 1970s. At that time, there was considerable dissent among the scientific community about whether or not the earth's climate was changing due to human activity. Many believed that the climate changes they were observing were part of the natural cycles of temperature and climate alteration that come with the seasons, ice ages, and other natural processes. Since that time, the scientific community has come to all but consensus that the earth's climate is in fact being altered by human activities, specifically the human practice of burning fossil fuels and creating greenhouse gasses like carbon dioxide.

In January of 1995, a piece of the Larson Ice Shelf the size of Rhode Island broke off from Antarctica (Gelbspan, 1997). This dramatic development was one of the first climate change related weather events that received considerable media attention. The scientists who had long been concerned about global climate change viewed this event as an example of what would become commonplace as climactic alterations due to human activity continued happening on earth (Gelbspan, 1997). These scientists welcomed this early media attention, as it forced the issue of global climate change into the public's consciousness. Politicians have long been a part of the dialogue surrounding global climate change as well. Some went on record very early expressing great concern about climate change while others are only recently becoming comfortable using the term with certainty in their public addresses.

In 2007, the Intergovernmental Panel on Climate Change (IPCC) completed its Fourth Assessment Report. The IPCC was established by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) in 1988 to “assess the scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts, and options for adaptation and mitigation” (IPCC Secretariat, 2007). The IPCC is open to all members of the United Nations and WMO. The IPCC does not carry out any of its own research. Instead, it bases its assessments on peer-reviewed, published scientific and technical literature (IPCC Secretariat, 2007). The panel meets about once a year and has shown over time to be a fairly reliable reflection of (and contributor to) the changes in public opinion about climate change.

Global climate change is, in many ways, *the* environmental issue at the forefront of Americans' minds. It has gained a lot of public attention recently in a variety of ways. Hurricane Katrina, which hit New Orleans in September 2005, really impacted the American public. That hurricane was exactly the sort of extreme weather event that climate scientists have been concerned about happening with increased frequency and intensity due to climate change. The popularity of Al Gore's 2006 documentary "An Inconvenient Truth" speaks volumes to how tuned in America currently is to the issue of global climate change. In President George W. Bush's 2007 State of the Union address, he mentioned global climate change as a serious challenge that American must confront. Momentum around the issue of global climate change is only growing – it is the flagship environmental issue of the day. Because climate change is the current flagship environmental issue, I chose to focus this thesis work on print media coverage of global climate change.

Not only is global climate change the most pressing environmental issue facing the world today, it is one of the most popular environmental issues facing the world today. Climate change has recently gotten a lot of attention through a variety of mediums. Al Gore's 2006 film *An Inconvenient Truth* was the most scientifically-accurate, widely-seen film on the topic to date. In the past couple of years, there have been more and more magazine cover articles, newspaper reports, and television specials relating to the environment in general and climate change in particular.

Significance: the power of the mass media

The mass media can be a powerful institution under certain circumstances. Some dismiss the mass media, thinking that the only people who tune in and pay attention are people who do not vote, people who are constantly struggling to make ends meet, people who do not have better things to be doing with their time – in short, people who are not in positions of political, economic, or social power. They are gravely mistaken in this assumption. In fact, media effects research is a large and growing field, illustrating the rapid acceleration of the idea that the power of the mass media is in fact an important force to consider.

The mass media is so influential precisely because it appeals to and is actually able to reach so many people from all ends of the social, economic, and political spectrums (Gitlin, 1980, Ferguson, 2000). Business CEOs read newspapers every day. Politicians unwind at the end of a hard day's work by watching the television. Everyone listens to the radio while stuck in rush hour traffic. Everyone flips through magazines while standing in line at the grocery store. Mass media outlets are effective precisely because they have a large impact on a large number of people. The business of mass media outlets literally depends on their ability to make a large, diverse audience care enough about the issues they are dealing with that their large, diverse audience will keep tuning in, keep subscribing, keep paying to get their perspective on the most current information, the most pressing news.

The power of the mass media can be seen on multiple levels. The mass media both reflects and helps establish public awareness (Kroll-Smith, Couch, & Levine, 2002). The media's influence on social systems has been studied and proved time and time again (McQuail, 1996, Blumler & Gurevitch, 1996, Ferguson 2000, West 2005, West 2001).

This influence has been utilized to affect large-scale social change, especially throughout the past century (Trachtenberg 1989, Cieri & Peeps 2000, McChesney 2005, Reed 2005). These studies and more prove that media coverage does result in and impact the decision-making processes of the general public (Gamson, 2001, Ferguson 2000, West 2005, Corbett, 2007, Klandermans & Goslinga, 1996). These studies are extensively reviewed in Chapter Two. There are also many counter arguments that articulate why the media is not actually that powerful of a persuasive communication tool. Those studies are also extensively discussed in Chapter Two.

Mass media outlets must attract the attention of a large public audience. If they do not attract the attention of a large public audience, they cannot attract and retain advertisers, and thus they cannot survive as viable business ventures. Audiences tune in to mass media outlets for a variety of reasons. One of these reasons is that audiences are attracted to the fact that they can be active participants in the information they are given and the events they are shown through the media. Audience members can be active participants in the media by calling in to radio stations, choosing to tune in even for advertisements, visiting certain websites, and sharing their favorite media outlets with friends, to name a few (Ferguson, 2000). However though audience members can be *active participants*, they are almost never actually *in control* of the media they are constantly exposed to. Thus, the power of the media is further compounded. Not only do mass media outlets attract the attention of a large, diverse audience, they attract the attention of those audience members when they are fooled into believing that they are relaxing and they are actively in control of the content of what they are being exposed to. In fact, the number of people who do understand the way the media works is such a

minority that there is a phrase commonly used to describe them. Media literate audience members are audience members who understand how the media creates meaning about the world (Wicks, 2001). The rest of the members of the media's massive audience are simply consumers of the media, not active critics.

It is, of course, important to note the limiting factors implicated when talking about the power of the media, particularly the power of the mainstream print media. For many printed mass media publications, even the nation's leading trend-setting publications, readership is declining (West, 2001). Young people, especially, are increasingly turning to alternative media outlets, including the internet, talk radio, and blogs. These limitations are important to consider, however, even given these and other limitations on the influence of the mass print media, the mainstream print media is still an incredibly important and influential institution.

The mass media has the power to direct public attention to certain issues. This power of the media is referred to as "agenda setting" (Ferguson, 2000 p. 232, West, 2005). The mass media also sets the standards by which we judge our leaders. This is called "priming" (Ferguson, 2000). These are only a few examples of the incredible power of the mass media. It is an incredibly wasted opportunity that environmental organizations are not currently effectively tapping into the powerful, wide-spread, influential powers of the mass media.

The mass media has been, and must continue to be, studied seriously as an incredibly powerful social and political tool. The mass media reaches a huge number of people across all demographic divisions. It also has the power to alter public opinion and therefore direct political action. Social movements have tapped into this power over time

to greatly increase support for their causes. The environmental movement can similarly tap into these powers of the mass media – it just needs to understand more fully how that can be done.

### Policy significance

Given this groundswell of support for climate change, the timing is ripe for an analytic, comprehensive study of the media coverage of this pressing environmental issue. For most Americans, climate change is the most tangible and important environmental issue facing the world today. For the average American, global climate change is currently the most accessible hook into environmental issues. The environmental movement stands to gain a lot of allies if it can manage to effectively tap into the immense public interest and attention that global climate change currently holds.

Given all these powers of the mass media, it follows that environmental organizations could be much more influential if only they more effectively tapped into the powers of the mass media by more consistently eliciting positive coverage of their activist efforts and research results. If environmental organizations used the mass media as a *means* through which they could reach and educate more people, instead of being afraid of – or worse, abrasive towards and alienating to – the mass media, they could be so much more influential. In order to sustain a viable social movement, it is important to attract and retain a large base of support (Gitlin, 1980). Therefore, in order for an environmental organization to be effective in furthering the environmental movement, it too must be able to attract and retain a large base of support. The mass media can be the tool that environmental organizations use to attract and retain the large base of support

they need to be viable agents and potent actors of positive change on behalf of the environmental movement.

Social movements have been defined as “sustained and self-conscious challenge to authorities or cultural codes by a field of actors (organizations and advocacy networks), some of whom employ extra-institutional means of influence” (Gamson & Meyer, 1996, p. 283). Social movements must be able to draw from existent cultural norms and functions in order to attract and retain the large base of support that is absolutely essential to the creation and sustainability of social movements. These cultural norms and functions include those that relate to creativity, artistic expression, and mass communication. There are ten primary functions of cultural forms within movements. These functions are to encourage, empower, harmonize, inform internally, inform externally, enact movement goals, historicize, transform affect or tactics, critique movement ideology, and make room for pleasure (Reed, 2005, pp. 299-300). The mass media, like many art forms and communication techniques, provides a viable way to fulfill several of these functions. The mass media can be used to encourage people to learn more about an issue, empower people who already know a lot about the topic at hand, and harmonize the efforts of a variety of individuals and organizations. Given all these extraordinary powers of the media, along with how much the environmental movement could benefit from the appropriate utilization of these powers, it is absolutely imperative that the media be used, as effectively as possible, by environmental organizations as a tool to further the environmental movement, a way to educate more people about the most pressing current environmental issues.

The results I come to in this work are of practical and immediate use to environmental organizations like the World Resources Institute, the Sierra Club, the National Wildlife Federation, and Greenpeace, among others. These organizations were extremely helpful in informing the portion of my research that involved interviewing organizations to see what their current relationship with the mass media is (see Chapter Four) and it is my hope that they will be able to use my findings and recommendations to guide them as they continue to structure their future activist efforts and presentations of scholarly work in ways that are more likely to lead to mass media coverage. The results I come to in this work are also of interest to academics who study environmental communication as well as those who study the impacts of the media on social movements. Finally, the results I come to in this work are of interest to media effects researchers, or people who study the impacts of media coverage on individual habits, voting habits, and political actions.

### My argument

Through a series of interviews (see Chapter Four), I have been able to understand how media and communications professionals at a variety of environmental organizations view their relationship with the mass media. By studying how the mass print media is already covering global climate change (see Chapter Five), I have been able to understand how mass print media outlets are likely to continue covering climate change. By understanding both of these things, I have been able to come up with a set of recommendations directed at environmental organizations, aimed to help them inform their media relations efforts aimed at increasing print media coverage of climate change

related issues. These recommendations include that environmental organizations should work together more often, that they should develop personal relationships with certain media practitioners, that they should talk about climate change in nationally-specific ways, that they should focus on solutions more strongly than they focus on the factors leading up to the problem itself, and that they should not avoid complexity when it comes to climate change and related issues.

### Research strategy

I broke down my overall question – can environmental organizations increase mass print media coverage of global climate change? – into a few specific research questions and methods. My primary research strategy was a content analysis of articles published in mainstream, trend-setting publications over the course of one calendar year. I gathered the relevant articles by conducting a LexisNexis Academic search. I searched for stories with “global climate change” or “global warming” in natural language anywhere in the text that appeared in *The New York Times*, *The Washington Post*, *The Economist*, *Newsweek*, or *U.S. News and World Report* between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007. This search yielded about 100 articles which I then read through, categorized in a variety of ways, and analyzed (see Chapter Three for details regarding methodology; Appendix Four for details regarding coding practices, Chapter Five for details regarding results, and Appendix Five for bibliographic details).

I chose the terms “global climate change” and “global warming” because they are the terms that are most often used to describe the issue that I was trying to track in my study. I chose the time span of one calendar year because I wanted to be able to account

for the possibility of different amounts of global climate change coverage depending on the month of the year and the season. I chose this September-to-August time frame specifically because it allowed me to collect the most current data possible without interfering with my plan for timely thesis completion and graduation in May 2008.

I chose to focus on print media for the duration of this study because focusing on print media was one way to cut the huge amount of mass media coverage down to an appropriate size for the scope of this work while still allowing me the opportunity to comprehensively study one segment of the mass media. The print media is just one segment of the “mass media,” an umbrella term that encompasses television, internet, and the radio, to name a few major media outlets. In addition, in choosing to follow only the media coverage printed in trendsetting print media outlets, I was following a precedent that has been set by other similar studies. This decision that myself and others have made to focus on print media outlets when conducting these studies has also been informed by the fact that the press is generally considered to be the most influential way to reach opinion leaders (West, 2007). Unfortunately, given the time constraints I was working with, I could not conduct a completely comprehensive study covering all mass media outlets’ coverage of global climate change. Realizing that I had to cut to one major mass media outlet, I chose to focus on print media because previous similar studies have focused on print media (McAdam 1999, Steinberg 2001, Brown 2001, McCright & Shwom, 2008). Since I wanted my research to fit in to the current relevant framework of similar studies, following precedent was an important factor contributing to my decision to focus only on print media coverage of global climate change in this study.

I chose to focus on the *New York Times* and the *Washington Post* because they are considered to be the trend-setting daily newspaper publications of record. Both newspapers have daily circulations over 700,000. Both papers are where virtually all significant news is reported (Brown, 2001). I was also following precedent when I chose to focus on these two publications – previous similar studies have been limited to these two newspaper dailies as well. Since I wanted my results to be easily integrated into the current body of similar work, it was important for me to follow precedent in this way.

I chose the magazine publications that I did in order to round out the upper-level, mainstream print media analysis that I had taken on. I wanted to make sure that I had a comprehensive sample size for my study, and the previous studies I was drawing on for precedent also considered these publications (Brown, 2001, McCright & Shwom, 2008, McAdam, 1999, Steinberg, 2001). In choosing those publications, I knowingly limited myself to a certain demographic audience. In order to more fully understand this audience and the resulting limitations of my work, I researched what the demographic breakdown of the audiences of the publications is, as well as how these publications internally define themselves and externally advertise themselves as. This secondary research question helped me more fully understand the context in which I was finding my results.

Additionally, in order to make my recommendations more relevant to the environmental organizations that comprise the target audience for this thesis, I conducted interviews with the communications leaders and media professionals of several environmental organizations, asking them about what their relationships with and views of mass media outlets are currently like. In finding the answers to these questions, I was

able to further ensure that my final recommendations would be relevant to my intended target audience. More information on the interview related methods and results, can be found in Chapter Four.

#### Summary of the following chapters

The following chapter is an extensive literature review. It outlines what other similar research has already been done and specifically explains how my research fits in to the broader field to which it relates. From that theoretical foundation, Chapter Three goes on to further outline my research questions as well as the specific research methods I used in my data collection. In this chapter I further explain and justify exactly why I made the decisions I made with regards to the research questions and specific methods. This chapter draws heavily from the precedents set by the research methods used in previous similar research efforts.

The fourth chapter goes into the results I was able to gather from the interviews I conducted with media professionals at various environmental organizations. In this chapter I discuss the questions I asked of the interviewees, as well as the results I found across the interviews, beginning to set the scene for the conclusions I ultimately draw and the recommendations I ultimately make.

In Chapter Five, I discuss the patterns I saw that arose from the data collection I conducted while reading and coding the articles that were published about climate change. In this chapter, I also get into what the implications of these patterns are for the environmental movement, for responsible environmental journalists, and for

environmental organizations interested in increasing media coverage of their actions and research findings.

The sixth chapter is my conclusions and recommendations chapter. In this chapter, I outline specifically what steps environmental organizations can take to effect greater, better media coverage of their activist events and research results, specifically those involving global climate change. In this chapter I also revisit specifically what the larger implications of this increased media coverage can be – what kind of personal behavioral changes, voter habits, and political actions can be expected to happen if these recommendations are followed. This portion of this chapter relies heavily on previous research that has been done on the topic of how media coverage impacts personal decisions and political action, bringing my work full circle, tying it back in with the work mentioned in this chapter as well as the publications discussed throughout Chapter Two. This final chapter is the piece of this work that is most directly relevant to environmental organizations campaigning and advocating on climate change. As it is these organizations who primarily make up the bulk of the practical, direct audience for this thesis, it is my sincere hope that these conclusions and recommendations will be of use to them as they continue trying to reach out to the public with the greatest impact possible.

## **Chapter Two: Literature Review**

### **Introduction**

This research centers on the question of how environmental organizations can more effectively use the mass media to communicate to the public about global climate change. The environmental movement, following the successful history of other social movements, has already been actively using the mass media to rally support for environmental issues. The measurable success of various individuals, groups, and movements being able to use the mass media towards educational ends is a topic under much theoretical and practical debate. Much of this debate falls into the discipline of media effects research. Many media effects research studies have been conducted and published showing the impact that media messages have on public opinion and behavior. However, there have not been studies that have specifically addressed the question of how environmental organizations, as the leaders of the environmental movement, can more actively tap into the power of the mass print media to more effectively educate the public about climate change. While this study attempts to take advantage of that previously missed opportunity, the full ramifications and limitations of it cannot be understood without first extensively exploring previous similar studies.

### **Is the mass media an effective persuasive communication tool?**

“Mass media” is a term used to denote the sections of the media that are designed to reach large amounts of people at one time. Examples of mass media outlets include television, radio, newsprint, the internet, and other digital devices. People have been interested in more fully understanding and more efficiently harnessing the influential

power of the mass media for a long time across and wide array of disciplines. As a result, the field of media effects research, or the study of the ways in which the media impacts people's perspectives, beliefs, and actions, has been established and gone through many changes over time. These changes can be traced through three major theoretical frameworks which represent the three major schools of thought with regards to how influential the mass media is. These major theoretical frameworks are the magic bullet theory, the uses and gratifications model, and the minimal effects model. The methods to study media effects include content analysis and polling data.

#### The mass media is very influential – the magic bullet theory

In the 1930s and 1940s, the prominent media effects theory was the “magic bullet theory” also known as the “hypodermic needle theory.” According to this school of thought, media messages were injected into audience members who were otherwise blank slates (Campbell, Martin, & Fabos, 2000). Thus, according to the magic bullet theory, the influence of the mass media is incredibly large, often considered to be the primary influential factor over the general population. While not all media effects studies begin from the premise that the mass media is the most effective way to influence audiences, the results of many of these studies support the magic bullet theory belief that the mass media is extremely influential. Studies have shown this influential ability of the mass media to be based in many different things.

There are many qualities that the mass media possesses that lead to and illustrate its power to influence public opinion. These qualities include 1) the immediacy of the media, 2) the interactive potential of the media, 3) the media's simultaneous availability

to all levels of society (Ferguson, 2000), 4) that social systems and mass media systems are completely interdependent (Blumler & Furevitch, 1996), and 5) that media messages have a large impact because they are effective means of telling a story (McCright & Shwom, 2008).

By its very definition, the mass media has the unique power to reach many people at once. The general public looks to the mass media for information which will inform their opinions about important social and political issues (Corbett, 2006). When one changes, it impacts the other profoundly. The general public tends to listen to the mass media, especially under certain circumstances. Reporters “influence how issues are framed, conflicts are resolved, and citizens evaluate the political process” (West, 2001, p. 125). Because they hold this influence, mass media outlets have the power to direct public attention towards (or in many cases, away from) certain issues. This power, often referred to as “agenda setting,” is what makes media outlets able to direct and influence social systems (Ferguson, 2000, and West, 2005). Social systems inform and even dictate the public’s beliefs and actions. It follows, therefore, in agreement with the magic bullet theory, that the media, through its influence on social systems, impacts the public’s beliefs and actions greatly.

People have long used the arts and the media to sway public opinion and further social causes. Communications professionals of all varieties use their work to create discourse about a variety of social issues (Cieri & Peeps, 2000). It is impossible for artists to create this dialogue without the use of mediums that are able to reach large audiences at once. The mass media provides many outlets which do just that – create a

public dialogue about issues of importance. Through creating this dialogue, the mass media dictates what issues are in the public spotlight and on peoples' minds.

One thing that makes certain individuals and mediums particularly good at furthering social movements is that they are effective storytellers. The media messages that are the most powerful effectively use the complex art of storytelling – not hard science, or condescending preaching, but the personal, emotionally affective art form of storytelling (McCright & Shwom, 2008). This storytelling power of the mass media is compounded by the fact that the mass media speaks a type of universal – but not homogenous – language that can reach a broad base of people in a short amount of time and space (Naisbitt, 2006). Mass media outlets poignantly provide forums through which a story can be told to a large audience (Lloyd, 2005). This wide-reaching quality of the mass media makes the magic bullet theory viable. By tapping into the mass media's long-proven ability to tell stories effectively and efficiently, social movements including the environmental movement can continue to use the mass media as a vehicle to spread their message.

Numerous articles and books full of previous studies that have attempted to track and show how media coverage of issues has directly or indirectly influenced people's decision-making processes have been published. While not all of these publications explicitly espouse the magic bullet theory, their results can be used to illustrate it. Some of these publications focus more on developing and perfecting an ideal methodology for the content analysis and categorization of the media's coverage of certain issues (Brown, Zavestoski, McCormick, Mandelbaum, & Luebke, 2001, Gamson, Croteau, Hoynes, & Sasson, 1992, Blackman & Walkerdine, 2001, McAdam, 1999, Steinberg, 2001). Other

publications focus more on the results these studies have found, supporting the argument that media coverage does impact public opinion and action (Corbett, 2006, Steinberg, 2001, Klandermans & Goslinga, 1996, Shanahan, 2007, West, 2001, West, 2005). Still other publications focus on specific media recommendations – ways in which individuals or groups can actively use those developed methodologies and results to effect better media coverage of issues of importance, which in turn results in greater public action (McChesney, Newman, & Scott, 2005, Frome, 1998, Shanahan, 2007, Pick, 1993). All of these publications responsibly include the limits of media effects, a fact which one could use to argue that these studies belong more appropriately under the theoretical heading of “minimal effects model,” but nonetheless it is important to note that there is a huge body of literature that focuses specifically on the ways in which the media is influential – if not explicitly as a magic bullet solution to all social ills, at least as a very powerful persuasive communication tool.

Perhaps the most prevalent example of the importance and prevalence of media effects research that tends to see the media as a magic bullet, injecting knowledge and thoughts into otherwise empty vessels can be seen through the example of media effects research that focuses on the connection between violent media images and aggressive behaviors in children and teens (Campbell, Martin, & Fabos, 2000). Many researchers in many studies over many years have sought to understand the possible connection between violent media images and aggressive behaviors, particularly the aggressive behaviors exhibited in male children and teens when exposed to violent movies and graphic video game imagery. Many prevalent researchers believe – and have proven – that the media does prominently impact how people behave, personally as well as

politically. For this reason, as well as the other reasons outlined above, the media has been proven to impact public beliefs and behaviors.

However, the magic bullet theory is a fairly extreme way of viewing this power of the media. Over time, people began to believe more and more that this magic bullet theory was incomplete, as individuals do not generally interact with the mass media completely void of preconceived ideas or notions, thus discrediting the idea that audiences are blank slates waiting to be filled unquestioningly with the mass media's version of an issue (Campbell, Martin & Fabos, 2000). As a result, prominent theories of media effects research have evolved into the forms explained below.

#### The mass media is selectively influential – the uses and gratifications model

In response to the inadequacies of the magic bullet theory, a more moderate theory emerged called the “uses and gratifications model.” This model was primarily developed as a way to contest the assumed audience passivity put forth by the magic bullet theory (Campbell, Martin, & Fabos, 2000). According to the uses and gratifications model, individuals selectively become impacted by some – but not all – media messages that they are exposed to.

As already shown repeatedly through the studies cited in the previous section, the mass media has the power to direct the public's attention towards certain issues. This agenda setting power of the media is illustrated by the ways in which everyday people look to the media to inform their everyday decisions. However, according to the uses and gratifications model, the media is likely not the only tool that the public uses to inform

their opinions and actions. The uses and gratifications model holds that the public forms their opinions based on media messages as well as other influencing factors.

That said, the media's power is particularly important to consider given how it is compounded by the fact that it impacts the opinions and actions of the elite class as well as everyday lay people (W.A. Gamson, 2001, Ferguson, 2000). The media gives "social movements and the collective actions they engage in a prominent place in the discourse on public policy issues" (W.A. Gamson, 2001, p. 61). In other words, media coverage not only leads to laypeople making decisions. Media coverage leads to powerful people, like politicians who have the ability to make wide-reaching decisions, taking social movements seriously. Elected officials find out what their constituents find important, as well as where they stand on those issues, in large part through what their communities' media outlets are presenting. Thus, while the mass media is arguably not the most important thing informing the decision making process of the public, it is one major thing informing the decision making processes of both elite and common Americans.

The uses and gratifications model shows the middle ground between the magic bullet theory of the 1930s and the minimal effects model that emerged in the 1960s (Campbell, Martin, & Fabos, 2000). Through the lens of the uses and gratifications model, one can appreciate the power of the mass media while fully realizing and acknowledging the limits of that power. In this way, the uses and gratifications model represents the most moderate – and arguably most realistic – theory of media effects research. This more moderate view of the power of the mass media, being somewhat more realistic than the extreme ends of the spectrum, is favored by some media relations

professionals at environmental organizations (Kommers, personal communication, April 2008).

The “minimal effects model” followed the theoretical framework of the uses and gratifications model. Through this model, the other end of the spectrum of belief regarding the influential powers of the mass media is given a theoretical voice.

#### The mass media is minimally influential – the minimal effects model

The “minimal effects model” holds that people selectively expose themselves to media messages that they are already pre-disposed to agreeing with (Campbell, Martin, & Fabos, 2000). According to this model of media effects research, media messages merely reinforce the beliefs and attitudes already held by their audiences. Thus, the actual effects of various media messages are minimal, as the audience selects the mediums – and often even the specific stories – they are exposed to, which makes them predisposed to agreeing with the messages they receive through those mediums. As a result, according to the minimal effects model, the media messages themselves do not actually change the beliefs and actions of individuals or the general public. This model rounds out the spectrum of theories about audience interaction with and belief in the media that were prominent in the mid-20<sup>th</sup> Century, and can be backed by studies that attempt to illustrate the minimal (if at all existent) effects the mass media has on audiences. These studies attempt to show the minimal effects of the mass media in a variety of ways, including by pointing to the ethics and practices of the mass media, by explaining how the public does not believe in the mass media as much as it used to, and by discussing the

belief that the media cannot create interest for an issue if there is not something salient to the general public about the issue preceding the media coverage itself.

First come the body of studies that argue that the goals and ethics of journalism dictate that journalists cannot use the mass media to sway public opinion. Journalists pride themselves on their ability to deliver stories and report on news in a way that is “fair and balanced,” or “objective” (M. T. Boykoff & J. M. Boykoff, 2004, Anderson, 1997, McCright & Shwom, 2008, Shanahan, 2007). In the pursuit of this goal, media reporters attempt to distance themselves and their audience from the issues they cover (Hannigan, 1995). Thus, some literature argues that, even if it is theoretically possible, it is journalistically unethical for media outlets to actually impact public opinion.

Specifically, scholars have studied and argued that this journalistic practice of being “fair and balanced” is a particularly ineffective way to cover environmental news (Smith, 1992, M. T. Boykoff & J. M. Boykoff, 2004). Thus, in addition to the fact that journalistic ethics and goals stand in the way of the media impacting public opinion for any topic, some scholars have argued that with scientific news in particular it is all but impossible to sway public opinion only using the mass media. This desire of reporters to be “fair and balanced,” even when considering scientifically-related news has been complicated and written about extensively under the phrase “dueling scientists scenario” (McCright & Shwom, 2008). As much environmental news is science news, this is an important complication to consider when trying to understand the effects of various media messages.

Similar to the ways in which some believe that the ethics of journalism necessitate a lack of influence in the mass media, some articles point to the practices of journalism

necessarily resulting in the mass media not being influential. As mentioned earlier, the mass media is an effective storytelling tool (Lloyd, 2005, McCright & Shwom, 2008). While this storytelling ability appeals to the emotions of a broad base of people, it is not necessarily the best way to convey complex and broad-reaching issues. Media reports on environmental news in particular have historically tended to focus on telling the story of individual events, like specific weather phenomenon and individual oil spills. This practice of isolating events as individual stories, while an effective communication technique, shifts the focus to the individual events rather than the broader context in which these events are happening (Wicks, 2001, Hancock, 2003, Shanahan, 2007). This shift in focus allows individuals and companies to be able to escape responsibility for the broader issues that these events collectively illustrate. It also means that media audiences are often left confused as to how all these seemingly disconnected stories are related (Smith, 1992). When the public sees these events as disconnected and somewhat random, events that they cannot impact in a meaningful way, they are not likely to be particularly effected by media coverage of these events.

Another prominent theme throughout the literature that is used to illustrate how the media cannot impact public opinion and action is the theme of the public's lost faith in the media. This theme holds that even if journalists once could sway public opinion, people have since lost their faith in the ability of the media to be unbiased, thus making the current media outlets incapable of earning enough public trust to be able to sway public opinion. Studies have shown that public faith in the credibility of news sources reached its peak in the 1960s and 1970s (West, 2001). The public's faith in the credibility of the media first began to erode in the 1990s and has since continued to

decline (West, 2001). This erosion of the belief the public has in mass media coverage can partially be explained by the tendency the media has to be drawn to the news that is particularly outrageous, bizarre, or dramatic (Ferguson, 2000). Specifically, much research has focused on the decline in the public's belief in print news media. Readership of daily newspapers is on the decline. In fact, according to Philip Meyer, if the readership of daily newspapers continues along current trends, the last daily newspaper reader in America will disappear in October 2044 (Luntz, 2007, p.187). Home subscriptions are very low. In 1985, 67% of households subscribed to one or more newspapers, but by 2001, only 43% of households received a newspaper (Luntz, 2007). In 1985, two-thirds of 25-35 year olds had recently bought a newspaper, but by 2005, only 37% of that age group read at least one newspaper a week (Luntz, 2007). In 1998, over 58% of American adults read a newspaper on an average weekday, but by 2005, that number had fallen to 51% (Luntz, 2007). These studies indicate a rapid decline in the belief of the mass media as well as a rapid decline in the relevance of the mass print media in particular. This erosion of the public's belief in the media is yet another prominent theme throughout the literature that falls within the theoretically framework of the minimal effects model of media effects research.

The final theme encompassing arguments that the media is minimally influential holds that while media manipulation can be an effective way to *gain* momentum for an issue that is already on the public's consciousness, it is an ineffective way to *create* public interest in the first place. J. Gamson (1994) argues that the market has to be just right in order for an audience to be able to receive any sort of celebrity, popularize any mass consumable, or create any sort of social phenomenon. While the media can further

momentum for an issue that the public already finds important or interesting, it cannot create interest for any particular item, issue, or event (J. Gamson, 1994). Similarly, West (2005) articulates that while the media has incredible agenda-setting abilities in terms of impacting what is on the forefront of Americans' minds, it alone cannot make those issues initially salient and immediately important to the masses. Still other researchers stress that while the media does have incredible agenda-setting powers, it in and of itself is actually quite far from being a silver-bullet solution to solving all social ills (McCarthy, Smith, & Zald, 1996). Because the initial creating-interest portion of the work must be done elsewhere, the media's influence over public opinion and action is severely limited. These reasons – that the public is selectively pre-disposed to agree with the media messages it chooses to expose itself to, that the goals, ethics, and practices of journalism make it minimally influential, that the public has lost faith in the media, and that the media cannot create interest for an issue if there is no interest for that issue to begin with – all point to the minimal effects model being the most accurate theory of media effects research.

#### Why there is ongoing debate: the media's influence is impossible to prove conclusively

As shown by tracing the historical progress of the field of media effects research from magic bullet theory to uses and gratifications model to minimal effects model to content analysis studies, the relative impact of the mass media on public opinion and action has long been a hot topic of debate. Finally, and perhaps most tellingly, there is the body of literature that articulates that it is impossible to prove whether or not the media directly impacts the actions and beliefs of the public. Blackman & Walkerdine

(2001) argue that it is nearly impossible to identify cause-and-effect relationships between individual media messages and specific actions, results, or changes in belief. This is due in large part to the widespread nature of the mass media. Because, by definition, the mass media saturates all levels of society, it is incredibly difficult to locate a clear difference between people who have been exposed to a certain message through a certain medium and people who have not (Blackman & Walkerdine, 2001). Newspaper messages, for example, exist in a sea of other media messages, not in a vacuum in which you can identify their effects without complication (Blackman & Walkerdine, 2001). Because of this and related complications, it is impossible to judge the relative success of an organization or a pressure group based purely on the amount of media attention it enjoys (Anderson, 1997).

It is also important to consider that it is not only free media messages delivered through free mediums that impact the decisions people make. The complication of advertisements and other paid or sponsored media messages must also be considered when conducting media effects research studies. A lot of work has been done tracing the impacts of advertisements on consumer behavior (Marchand, 1985, Schudson, 1984, Frank, 1997, Seiter, 1995). It is hard to trace the impacts of advertisements, however, because advertisements, like all other media messages, influence the overall context in which people make decisions (West, 2005). Because of the very widespread nature of the mass media, it is difficult to directly correlate citizen, consumer, or voter behavior to one specific media message from one particular media outlet. Thus, many publications argue, the media's relative influence on public opinion and behavior, even if existent, is impossible to prove conclusively.

Based on all these arguments and counter-arguments about the mass media's ability to impact public behavior, I proceed with my original work from the following premise. The mass media alone cannot be the *only* solution to (or the only problem with) social, environmental, and political issues (Blackman & Walkerdine, 2001). It can, however, be a *part* of the solution. In fact, citizens and organizations have a responsibility to find ways in which they can harness media realities to achieve goals of the common good (West, 2001).

Ferguson (2000) said it best:

“Academics spend a great deal of time debating whether media have a direct effect, an indirect effect, or no effect at all on audiences. Paradigms of thought have evolved to accommodate these debates. Presidents, prime ministers, and corporations, however, rarely ponder such questions. They hold an unwavering belief that media have powerful effects of an indirect and direct nature” (Ferguson, 2000, p. 51).

While it is important to recognize the compelling arguments on all sides of the debate about the media's impact on public beliefs and actions, at some point it is necessary to simply take the media's abilities for what they are – no more and no less – and try to use them to the greatest extent possible as a tool to help achieve goals of social good and societal progress. As explained throughout this chapter, there are clearly limitations to the ways in which the mass media can be used as an educational tool and as a means of effecting social change. I continue this thesis respectfully recognizing these limitations, moving forward from them with the strong conviction that the environmental movement could be more effectively utilizing the opportunities the mass media presents. It is clear that other social movements have also come to this conclusion, as they have similarly tapped into the power of the mass media in a variety of ways over time.

## Role of the mass media in social movements

The mass media helps communities form, articulate, and practice their collective identity (Reed, 2005). Television is the most dominant mass media source, although the power of digital communications is rising in influence. Two thirds of Americans report that their primary source for news is the television (West, 2005). While television is the most dominant source for news, “newspapers are the second-most important source of information and play a unique watchdog role, providing in-depth and investigative reporting” (Cooper, 2005, p.176). A Pew Center for People and the Press survey conducted in June 2005 found that when asked where they receive their news information from, 74% responded that they get news from the television, while 44% mentioned newspapers, 24% mentioned the internet, and 22% mentioned the radio (McCright & Shwom, 2008). While more people reportedly get their news from television, and increasing numbers get their news from the internet and other digital sources, the print media maintains a unique and important role with its audience. This is partially because, due to a variety of logistical factors, the print media’s knowledge of their audiences tends to be more intimate and accurate than the broadcast mediums’ knowledge of their audiences (Anderson, 1997, Beder, 2002). The mass media’s primary goal is to provide as many people as possible with information that is as reliable and relevant as possible. One major value that the mass media holds itself to in pursuit of this goal is that of being “fair and balanced” in its reporting (M. T. Boykoff & J. M. Boykoff, 2004). As discussed earlier, this value can be problematic, but is nonetheless important to journalists. Consistent with the goal of being “fair and balanced” are the other values for communication in American society – namely freedom, justice/equality, and

order/solidarity (McQuail, 1996). Because the mass media exhibits these qualities of high social importance, it is considered to be a socially reliable news source for people.

The mass media exhibits a lot of properties that make it very persuasive to the general public, including the fact that it provides immediate information, it is often interactive, and it is simultaneously available to all levels of society (Ferguson, 2000). As explained earlier in this chapter, it is important to note and keep in mind that there are also factors limiting the influence of the media. These factors include the fragmentation of the press, varying business ownership interests, and an increasing focus on bottom line profit (West, personal communication, October 2007). These influential properties and limiting factors are exactly what make the power of the media such an interesting topic. They are also what make some people weary of the media. Mass media news sources can give audiences the illusion of control. Mass media audiences actively choose to turn on the television, open up the newspaper, visit certain websites, and listen to certain radio stations. This active choice can lull audience members into a false sense of security that they are also in control of what they are watching, reading, and listening to (Ferguson, 2000). Ultimately, it is the audience members who believe that they are completely in control of the content of the mass media and beyond the external influence of the mass media that are the most likely to be influenced by the mass media into changing their beliefs (Reed, 2005). Of course, these audience members are not actually in direct control of the content of their media. This combination of audience trust and lack of direct control leads educated media consumers to be weary of the media. Many do not understand how the mass media works, and they wind up becoming weary and even fearful of the mass media and its control over their information. This fear is unproductive

and ill-informed. The power of the media – regardless of the exact extent of that power – can in fact be a good thing. The true question lies in how the power the mass media has can be most effectively harnessed and put to productive use, working towards goals of societal – and in this case, environmental – good.

The media has historically played a large role in social change and social movements. The media has been used increasingly over the course of the past century as a way to inform the masses about social ills, a way to rally public and political support and coordinate actions to work towards righting those ills, towards creating social goods. These social goods include the integration of immigrants, ceasing child labor practices, ending segregation, furthering the civil rights movement, spreading knowledge about the issues surrounding HIV/AIDS, and, of course, furthering the environmental movement. Often these examples first use art forms to depict issues, later using mass media outlets to enable themselves to convey those issues to a larger audience. Because the mass media is the forum through which these particular art forms are conveyed to large amounts of people, I am considering these art-based expressions to be media events. By first understanding the lessons this rich history gives us, one can see patterns emerge and can thus make more informed recommendations about how the current environmental movement can use the media to more effectively communicate about climate change and other important environmental issues.

One early example of the media furthering a social movement can be seen by examining the work of Lewis Hine, a prominent 1900s photographer. He completed two units for the New York Public Library, one on immigration and the other on child labor, taking pictures in hopes of effecting social change (Trachtenberg, 1989). He understood

that factual information alone did not tell the whole story – the social act lay in the communication of that factual information. For him, that communication, that storytelling happened best through photography. Ultimately, his work both caused and depicted a process of changing social patterns and values, ultimately leading to the assimilation of immigrants and ceasing of child labor practices (Trachtenberg, 1989). This is an early example of how art, made popular with the use of the mass media (in this case, mass print media outlets which published his photography), has been used to effect social change.

The work of the AIDS Coalition to Unleash Power (ACT UP) provides another example of a group that used the arts and the mass media to gain public knowledge about and concern for an issue of great social and political importance. ACT UP used mural art and mass visual campaigns at baseball parks to help get its word out to the masses (Reed, 2005).

Still another example of how the mass media has been used to further previous social movements can be found by examining the November 1999 “Battle of Seattle,” a widely publicized protest against corporate globalization. Though only thousands of protesters were actively physically engaged in the protest, millions of people watched coverage of the event on television (Reed, 2005). The simple fact that the number of people “involved” in the protest was able to multiply so quickly because of the protesters’ effective use of television media outlets speaks volumes for the power of the mass media. In addition to the boost in popularity the Battle of Seattle gained from television coverage, it was able to gather even more support because it was organized in a way that involved tying in the special interests of many different organizations. There were

university students, debt elimination/economic development groups, farmers, indigenous people, environmentalists, human rights activists, public health and consumer advocates, women's rights activists, and labor activists all engaged actively in this protest (Reed, 2005). The success of the Battle of Seattle was magnified by the fact that it was televised, making the issues involved in it seem even more important and universal because so many different people watched the coverage of the event on television (Reed, 2005). This case study provides one example of how media coverage results in greater knowledge about and concern for social ills, which in turn can be said to inform peoples' decision making and actions.

The arts and visual media can also be used as a way to directly involve and empower communities that are impacted by social and environmental injustices. These impacted communities often have a tremendous amount of local, personal knowledge about the issues that they face, but no degrees boasting and backing the fact that that they know so much information. There are many examples of public art projects, made popular by way of the mass media, which have tapped into this local knowledge and empowered the citizens of various impacted communities. For example, a community that suffered from increased asthma rates painted a mural that depicted their increased rate of asthma, what might have been triggering the disease, and what steps could then be taken to remediate those triggers (Corburn, 2005). Projects like these serve to empower the directly impacted communities and spread information about various issues to those not immediately impacted by or actively seeking out information regarding various issues.

As all these examples show, the powers of the mass media should not be ignored and do not need to be feared by individuals and groups looking to effect social change. These powers instead can be harnessed by those looking to effect change, thus making their messages more accessible to the general public and making the general public more inclined to care more about various events and issues.

### The mass media and the environmental movement

The environmental movement, complete with its goals of public education and social norm alteration, can in many ways be considered to be a social movement. In order to sustain a viable movement, a large base of support needs to be attracted and mobilized (Gitlin, 1980). A movement that only consists of students, or any other faction of society, is unsustainable. In order to be successful, a movement must be salient to a base of support that is large and diverse enough to withstand the social stigmas and other setbacks associated with any one particular group. Because of its power to reach a large audience in a small amount of time, the mass media is a tool that is incredibly good at rallying the support of a variety of diverse people at once. The media is also able to attract such a large audience because it simultaneously approaches people as the diverse beings that they are (Bennett & Entman, 2001). The mass media almost never strives to appeal only to parents, or teachers, or students, or health care providers, or activists, etc. Instead, it pitches stories to people as whole beings, understanding that the most powerful stories appeal to the individuals that make up their audience on a variety of levels at once.

As shown throughout the examples above, many social movements have greatly benefited from their ability and willingness to tap into the power of the mass media. The

environmental movement is no exception; it, too, has had a long – and often tenuous – relationship with the media, and it, too, can benefit greatly from attempts to better utilize the mass media’s strengths. The beginning of the environmental movement can be marked at the 1962 publication of Rachel Carson’s book *Silent Spring*. That publication is itself a mass media event, as it utilized a popular media form and resulted in many more people becoming aware of and caring about environmental issues (Elliot, 2006). The publication of *Silent Spring* and the popular interest in environmental issues that directly followed that publication resulted in even more media coverage, including Carson’s interview on the April 3<sup>rd</sup>, 1963 edition of the *CBS Reports* television program (Elliot, 2006). As shown in this example, media coverage often begets more media coverage. Thus, the power of the media can be seen to expand rapidly and build upon itself.

The relationship between the mainstream mass media and the environmental movement has not always been entirely positive, however. Many environmental groups have a tendency to take extremist or radical stances on issues, which often leads to a disproportionately large amount of media coverage of a relatively small portion of the environmental movement (P. Mackie, personal communication, October 22, 2007, N. Kommers, personal communication, November 1, 2007, D. Kessler, personal communication, October 15, 2007). Moreover, this major coverage of such a small, fringe group has actually had negative side effects for the environmental movement. For example, the radical environmental group “Earth First!” got a lot of negative publicity for advocating extreme, even violent actions in the name of environmental activism (Beder, 2002). Such extreme environmentalism continues to this day, even earning some

organizations and individuals the extremely undesirable moniker of “Eco-Terrorist.” Since the actions of Earth First! and other radical environmental groups make for dramatic and exciting news stories, the results of their actions wind up getting much more publication space and air time than the actions of many other, more mainstream environmental groups (McCright & Shwom, 2008). This can be detrimental to the environmental movement, as these more mainstream environmental groups are arguably coming up with events and research findings that are more accessible to the general public and more likely to impact a larger audience. It is important to note that it is not just the environmental movement’s proponents that fall victim to this disproportionate media coverage. It is noteworthy to mention that other social movements, like the labor movement and the women’s movement, have also had to manage similar media-related challenges. The journalistic goal of presenting stories in a fair and balanced way leads to the portrayal of many issues in a more controversial light than they actually are. With the issue of climate change in particular, a lot of media attention has been given to “skeptics” of climate change – those fringe scientists who have believed (and fewer and fewer who continue to believe) that climate change is not actually happening (Herrmann, 2007, McCright & Shwom, 2008).

In response to this disproportionate coverage of the different factions of the environmental movement (as well as those in opposition to the environmental movement, like the fringe scientists who have been vocal climate change skeptics), environmentalists have had to actively manage the media coverage they receive, making it clear that certain radical groups are isolated from the mainstream environmental movement. The mainstream environmental movement, led predominantly by environmental

organizations, has learned to manage the media in a variety of ways, including by developing certain individuals as key reliable sources on certain issues, by holding media practitioners responsible for what they report, by providing information early before an issue takes off, by preventing their opposition from setting the agenda, by being persistent in all their efforts, thus inoculating the channels of influence against blindly accepting what the activists will do, and by spelling out – for all involved – the consequences of allowing certain, extreme activists’ positions to prevail (Beder, 2002). The environmental movement has taken many of those lessons from the aforementioned social movements that have had to learn similar lessons. Thus, the environmental movement and its leadership in environmental organizations is extremely well positioned to use the powers of the mass media to the greatest extent possible. The only question that remains is that of how exactly environmental organizations can lead the environmental movement in doing that.

#### My contribution to the literature

As illustrated throughout this chapter, there have been many media effects research studies that have explored the extent to which media messages impact beliefs people have and decisions people make. There have also been studies outlining the ways in which social movements, including the environmental movement, have used the mass media to further their causes in the past. There have not, however, been studies specifically about how environmental organizations can better lead the environmental movement by more effectively utilizing the mass print media to effect social change. This research provides that perspective, and thus adds to the field.

There is also a hole in the literature when it comes to content analysis studies of mass media coverage of environmental issues, including print media coverage of climate change. This research begins to fill that hole, thus adding to the field in that way as well.

There are two major holes in the vast body of literature that this thesis draws from. These holes are the dearth of research addressing the leadership role of environmental organizations in facilitating more effective media coverage of environmental issues and the lack of content analysis studies examining print media coverage of climate change. This research adds to the literature in the sense that it begins to fill these two major holes, going so far as to combine them into a new, unique study, the results of which are directly useful to environmental organizations.

### Conclusion

The media's primary job involves communication, which often gets manifest through its ability to package and sell goods and ideas. Most often and most obviously, this is seen in the way the media packages and sells physical goods like laundry detergent, cultural forms like celebrities, and ideas like "green" products. It is important to note that the media is not only powerful in creating celebrities and selling goods. It has the power to introduce new vocabulary and ideals into the public's consciousness. The media's power to create popularity can be used in a variety of ways towards a variety of social goods. Since its very beginning, the mass media has always played a role in making things – from individual goods, to celebrities, to politicians, to social issues – popular. Increased media coverage, and even media manipulation, is one way to encourage popularity. However, cultural paradigm shift is not simply a matter of

increased media coverage. Just as for any other product the general public must be “sold” – either physically sold, emotionally sold, or ethically sold – the market for such a cultural paradigm shift has to be right (J. Gamson, 1994). Previous social movements have been able to successfully use the mass media through their own high quality communication efforts. However, they were able to be as powerful as they truly were because society was ready to hear the messages they were communicating about. Given the current popularity of global climate change, it seems clear that society is ready to hear mass media messages about climate change. It is up to environmental organizations, as the leaders of the environmental movement, to harness the power of the mass media and make climate change the media’s newest popular social issue.

I am not alone in the belief that the time is right for global climate change to fully hit the masses. Gelbspan concludes his influential 1997 book, “The Heat is On: The High Stakes Battle of Earth’s Threatened Climate,” with a plea for increased public information and collective action. “I think if most people were exposed to the truth and given a channel through which to act, they would choose responsibility over selfishness. I think if they truly understood what is happening to the earth, there would be an outpouring of will and courage” (Gelbspan, 1997, p. 193). It is my belief that the environmental movement can do an even better job of latching on to the momentum that global climate change currently enjoys by its leadership – namely, environmental organizations – more effectively tapping into the powers of the mass media, ultimately using that momentum and medium to spread knowledge about and concern for environmental issues, furthering the environmental movement.

If the power of the mass media is harnessed and used effectively, the environmental movement can help empower local knowledge (Corburn, 2005) and make environmental issues more salient to the general public (West, 2005). The mass media also has the potential to gather that support currently surrounding global climate change from the general public and turn that support into something tremendously politically and socially powerful (West, 2005). It is up to the environmental movement – with environmental organizations at the helm as the leaders of the movement – to not miss this opportunity. As leaders of the environmental movement, environmental organizations must take the lead in gathering the tremendous support around climate change, increase that support by using the mass media, and use that support to further the environmental movement as a whole.

## **Chapter Three: Research Questions and Methods**

### **Introduction**

Environmental organizations are already working hard to use the mass media to spread information about environmental issues. In completing this project, I hoped to offer recommendations advising environmental organizations on how to pitch their research results and activist events in ways that are most likely to lead to more mainstream print media coverage. In order to create those recommendations, I first had to thoroughly understand the current ways in which the mass print media cover environmental issues, as well as the current status of cooperation and collaboration between environmental organizations and the mainstream mass print media. As a result, the specific research questions I asked can be broken down into two main categories. First, I sought to answer the question of how do environmental organizations currently view the mass media and its role in furthering the environmental movement. The primary research method I used in answering this first research question was a series of interviews I conducted with media experts at a variety of environmental organizations. Second, I sought to answer the question of how mainstream mass print media outlets currently cover global climate change. In order to answer this second research question, I identified and read print media articles published in a variety of mainstream, trend-setting major print media outlets over the course of one year. By finding out the answers to these two primary research questions, I have been able to come up with recommendations advising environmental organizations how they can more effectively harness the power of the mass print media, thus magnifying their efforts to further the environmental movement.

### Research question one: environmental organizations' media expertise

In order to be able to answer my first research question of how environmental organizations currently view the mass media and its role in furthering the environmental movement, I needed to more fully understand how environmental organizations view the mass media and the role of the mass media in furthering the environmental movement. I sought the answer to this question in two primary ways: first, I completed a review of various organizations' publications on media strategies and tactics as well as their how-to publications about community organizing and social change. Second, I conducted interviews with media experts positioned at various environmental organizations.

One important section of the literature that I needed to familiarize myself with in order to make my research as relevant and updated as possible included the literature that environmental organizations and other social movement professionals have put forth themselves. Typically, these publications include information on the role of the mass media in the environmental movement as well as information on other, non-mass-media-related ways of effectively conveying information with the hopes of instigating mass concern and action. Some environmental organizations have put together and published specific how-to guides about community organizing and working with various communication mediums in order to effect environmental change. For example, the Sierra Club put forth its own community organizing book, complete with a communications guide explaining how to best contact and utilize local media outlets (Pick, 1993).

Many how-to publications about community organizing to effect social change are focused in environmentally-specific ways. These publications include Corbett's 2006 "Communicating Nature: How We Create and Understand Environmental Messages" and Pick's 1993 "How to Save Your Neighborhood, City, or Town." Other how-to publications about community organizing to affect social change focus more on media-specific communications techniques, with applications specifically to environmental issues and perspectives only peripherally mentioned or indirectly implied. These publications include Luntz's 2007 "Words that Work," Cieri & Peeps' 2000 "Activists Speak Out," McChesney, Newman, & Scott's 2005 "The Future of Media," Naisbitt's 2006 "Mind Set! Reset Your Thinking and See the Future," and Reed's 2005 "the Art of Protest," to name a few.

The media expertise of environmental organizations is not just represented in their printed guides, of course. Every environmental organization employs a variety of people under the job titles like "media contact," "communications manager," "communications associate," and "media officer," to name a few. All of these people are experts in environmental communications. They have years of firsthand experience in the field, and thus gaining access to their real-life knowledge gave my research a focus and validity that would have been unattainable through publication research alone. Because these professionals were such good resources for my project, I contacted several of them early on in my research process, continually adding to my list of contacts and relying heavily on their feedback to guide my research methods and questions. In order to find the contacts that became my interviewees, I searched the web pages of their respective organizations, looking for the contact information of people with media or

communications-related job titles (for complete list of interviewees and their contact information, please refer to Appendix One). I then contacted them by email, following up with further email correspondence and/or phone conversations as appropriate. I conducted two main sets of interviews, one in May 2007 and one in October 2007.

The interviews I conducted with these environmental communications professionals fall into two major categories. The first way in which these interviews contributed to my original research was by providing me with practical information about how environmental organizations currently view the mass media as well as how they believe they as organizations tap into and/or miss out on the power of the mass media. I conducted most of these interviews in October 2007. The second way in which these interviews informed my research can be seen in the way I chose to conduct and organize my article content analysis. I conducted most of these interviews in May 2007. The responses from the first round of interviews helped me organize the way I set up my article content analysis spreadsheet and the things I looked for in each article. For my second round of interviews, conducted in the fall of 2007, I was able to make my questions a bit more specific and nuanced. For a complete list of the questions I asked in both of these rounds of interviews, please refer to Appendix Two. The responses I got from the second round of interviews helped me further understand how environmental organizations currently view the mass print media and how they see themselves as tapping into and/or missing out on the power the mass media holds.

Over the course of my research for this thesis, I contacted a total of 37 media professionals at 11 environmental organizations. These contacts include, but are not limited to, Jon Barrows from the Sierra Club, Lisa Swann from the National Wildlife

Federation, Daniel Kessler from Greenpeace, and Paul Mackie and Nate Kommers from the World Resources Institute (for a complete list of correspondences, email addresses, phone numbers, and media contacts' titles, see Appendix One).

I chose to focus on interviewing professionals from these 11 organizations because they comprise and represent the premier environmental organizations in the United States. I found all of these interviewees and their contact information through searching their organizations' websites and through references from other environmental communications professionals.

All of these interviews were conducted in a semi-structured interview approach based on open-ended questions. In each instance, I took detailed notes on the responses of the interviewees, forming and altering my data collection methods as appropriate. When necessary, I followed up with new questions specifically referencing the interviewee's previous response that spurred on the new question. Since none of these contacts were local, I conducted all interviews by email and/or phone, using a semi-structured interview approach based on open-ended questions. The phone interviews were limited by the busy schedules of the interviewees. Similarly, the email interviews were somewhat restrained, as answers were often given without embellishment and I was not able to spontaneously ask the interviewees relevant follow-up questions. In both the email- and phone-based interview modes, there was no visual component to my exchange with the interviewees. Thus, the interviews lacked the component of body language and the more open exchange that often results from face-to-face contact. Despite these important limitations, these interviews provided me with valuable insights, as well as opinions and perspectives that were more personal and practice-based than literature

research alone could provide. In several instances, interviewees gave me leads to other professionals engaged in work relevant to my research, and in many cases, those new contacts became interviewees themselves. Though some interviewees engaged in much more in-depth conversation with me than others, they were all very helpful in a variety of ways throughout my entire thesis research process (for complete interview results, please refer to Chapter Four).

The responses I got from these contacts informed my article coding methods greatly. Early on in my research, Jon Barrows from the Sierra Club was particularly helpful. Through his feedback, I was able to more thoroughly understand specifically what information I *could* collect from the articles about global climate change, as well as what information I *should* collect, based on what information would be most helpful to environmental organizations like his. Correspondences with him helped me decide on what I included in my article coding spreadsheets. Later on in my research, Nate Kommers and Paul Mackie from the World Resources Institute were particularly helpful. Their responses helped me understand from a more realistic, practical standpoint what kinds of communication already happens between the specific environmental organizations and the mass media, as well as what practical challenges environmental communication professionals face. Overall, all the contacts I made and interviews I conducted also helped me understand how to better explain my research in a clear, concise way. For all these reasons and more, I am extremely thankful for the time and effort put forth by all the interviewees. In exchange for their time and responses, I am providing them and their organizations with copies of this work, complete with recommendations geared specifically towards their organizations.

## Research question two: current print media coverage of global climate change

My primary method of data collection for the print media articles I read was through a LexisNexis Academic search. I searched for stories with “global climate change” or “global warming” in natural language anywhere in the text that appeared in *The New York Times*, *The Washington Post*, *The Economist*, *Newsweek*, or *U.S. News and World Report* between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007 (for complete list of all articles, refer to Appendix Five). This search yielded 92 different articles which I then read through, coded in a variety of ways, and analyzed to come up with the recommendations that can be found in Chapter Six. I developed the methods through which I coded the content of these articles based on precedent laid out by previous, similar studies, feedback I received through my interviews with environmental communications professionals, advice I received from my advisors, and my own ideas (for complete coding manual, refer to Appendix Four).

A specific, detailed account of the methods I used to conduct my newspaper article search can be found in Appendix Three. Once I conducted this search and found all the relevant articles, I read all the articles, taking notes on them and coding their contents in a variety of ways. I decided to code them in the ways that I did based on the feedback I gathered during my interviews as well as based on the precedents laid out for me in previous similar studies.

Specific coding information can be found in Appendix Four, but generally speaking, I coded the contents of the articles as follows. In one Excel spreadsheet, I coded basic article information. Specifically, this included what the title of the article

was, who the author of the article was, the date the article was published, what publication it appeared in, where in that publication it appeared, the length of the article, whether or not the article had graphics in it (as well as what sort of graphics it had – maps, photographs, satellite images, etc), whether or not the article was an opinion piece, and finally, whether or not global climate change was the main focus of the article. I collected this basic article information so I could more fully understand the broader themes involved in print media coverage of global climate change – like who writes the majority of the articles, where in the publications the articles tend to be placed, etc.

In another Excel spreadsheet, I took more detailed notes about article content information. In this spreadsheet, I noted what the geographic focus of each article was (local, national, international, etc), what the overall frame of the article was, what results of global climate change were mentioned, what parties or practices were explained as being responsible for climate change, who was mentioned as being concerned about climate change, who was mentioned as acting to help solve issues related to climate change, who was mentioned as halting the process of solving issues related to climate change, what interest groups or stakeholders were mentioned, what solutions related to climate change were mentioned, and finally, who those solutions were oriented towards. For complete article content information results, as well as further explanation on how I coded all of these questions, please refer to Chapter Five and Appendix Four.

I chose the terms “global climate change” and “global warming” because they are the terms that are most often used to describe the issue that I was tracking throughout my study. I chose the time span of one calendar year because I wanted to be able to account for the possibility of different amounts of coverage of climate change depending on the

month of the year and the season. I chose the September-to-August time frame specifically because it allowed me to collect the most current data possible without interfering with my plan for timely thesis completion and graduation in May 2008.

I chose to focus on the *New York Times* and the *Washington Post* because they are considered to be the trend-setting daily newspaper publications of record. Both newspapers have daily circulations over 700,000. Both papers are where virtually all significant news is reported (Brown, 2001). I was also following precedent when I chose to focus on these two publications – previous studies of newspaper article content analysis have been limited to these two newspaper dailies as well (McAdam 1999, Steinberg 2001, and Brown 2001). As explained in Chapter One, it was important for me to follow precedent when conducting my original research, as I wanted my results to be as easily integrated into the broader context of other current environmental communications and media effects research as possible. I chose the magazine publications that I did in order to round out the upper-level, mainstream print media analysis that I had taken on. I wanted to make sure that I had a comprehensive sample size for my study. In seeking similarly comprehensive results, the previous studies I was drawing on for precedent considered these publications as well (Brown, 2001).

In choosing these publications, I knowingly limited myself to a certain demographic audience. In order to more fully understand this audience and the resulting limitations of my work, I researched what the demographic breakdown of the readership of these publications is as well as what kind of a publication they internally consider themselves to be and how they sell themselves to external groups like their advertisers.

### Publication specifications

In order to more fully understand the demographic audience of the publications I was focusing on and therefore be able to more fully understand the possible applications and relevant limitations of my research, I searched the publications' websites. The "advertise with us" and "media kit" sections of their websites were particularly helpful, as publications tend to keep very close records of their readership demographics for advertising purposes. Before I could begin to understand the limitations of my work, I needed to understand more about the publication specifics of the publications I was dealing with.

The *Washington Post* was founded in 1877 and is the largest newspaper in Washington, D.C. Along with the *New York Times*, it is considered to be among the country's leading national newspapers. Because of this, as well as the fact that previous similar studies have also focused on the *Washington Post*, I decided to use it as a source of articles I read through and categorized while I conducted my research. According to the *Washington Post* website's advertising section, the current circulation of the *Washington Post* is 699,130. The median household income for *Washington Post* readers is \$80,000 (The Washington Post Company, 2007). The median age of the readers of the *Washington Post* is 43, with 51% of that readership being male and 49% being female (The Washington Post Company, 2007). The *Washington Post* sells its advertisement space to companies by portraying its readership as "affluent, educated, and influential" (The Washington Post Company, 2007).

The *New York Times* was founded in 1851 and is currently the largest metropolitan newspaper in the United States. It is distributed internationally. The *New*

*York Times*, like the *Washington Post*, is considered to be a national newspaper of record, a contributing factor to my decision to focus on its stories while I conducted my research. According to the *New York Times* website's media kit, the circulation of the *New York Times* is 1,194,491. The median household income for *New York Times* readers is \$95,000 (The New York Times Company, 2007). The median age of the readers of the *New York Times* is 49, with 60% of that readership being male and 40% being female (The New York Times Company, 2007). The *New York Times* media kit highlights the fact that the newspaper ranks at the top of other daily newspapers in terms of "Overall Reach," "Reach of Regular Readers," and "Reach of Readers ranking the publication as 'Influential,' 'Objective,' and 'Credible'" (The New York Times Company, 2007).

The *Economist*, established in 1843, is an English-language weekly news and international affairs publication edited in London. It boasts over 1.2 million copies in circulation weekly, about half of which are sold in North America, making it an influential transatlantic publication. I added the *Economist* to my list of examined publications because I wanted to include a publication with a slightly more international- and finance-related perspective that was still widely considered to be a mainstream U.S. news source. According to The Economist Group's advertisements website, the median personal income of *Economist* readers is \$160,000. The median age of the readers of the *Economist* is 47, 93% of that readership being male with only 7% being female (The Economist Group, 2007). The *Economist's* media kit highlights its audience (circulation of 1,260,457 worldwide) as "affluent, well-educated, and influential" (The Economist Group, 2007).

*Newsweek* magazine, established in 1933, is the second-largest weekly newsmagazine in the U.S. I added *Newsweek* to my list of examined publications because it presents a popular, mainstream news source for a large portion of America in ways similar to the *New York Times* and the *Washington Post*, but it comes in a different form, as it is a weekly newsmagazine, not a daily newspaper. According to the *Newsweek* media kit, the median household income of *Newsweek* readers is \$70,995. The median age of *Newsweek* readers is 46.7, with 56% of that readership being male and 44% being female (Newsweek, 2007). *Newsweek's* media kit portrays its readers (total circulation: 18,446) as a group that invests wisely, travels well, and is technologically savvy (Newsweek, 2007).

*U.S. News and World Report* is a weekly American newsmagazine. Originally called "United States News" when founded in 1933, it was renamed when it merged with "World Report" in 1948. The main competitors of *U.S. News and World Report* are *Time* and *Newsweek* magazines. According to the *U.S. News and World Report* media kit, the median household income of the newsmagazine's 11,130 subscribers is \$63,380. The median age of *U.S. News and World Report* readers is 46.9, with 57% of that readership being male and 43% being female (U.S. News and World Report, 2007). *U.S. News and World Report* prides itself on providing its readership with "news it can use" in daily decision-making (U.S. News and World Report, 2007).

All together, these publications total a circulation of 3,183,654. The average median age of the readership of these publications is about 46.5 years old, with about 63% of that readership being male and 37% being female. The average household income of the people that comprise these readerships is \$93,875.

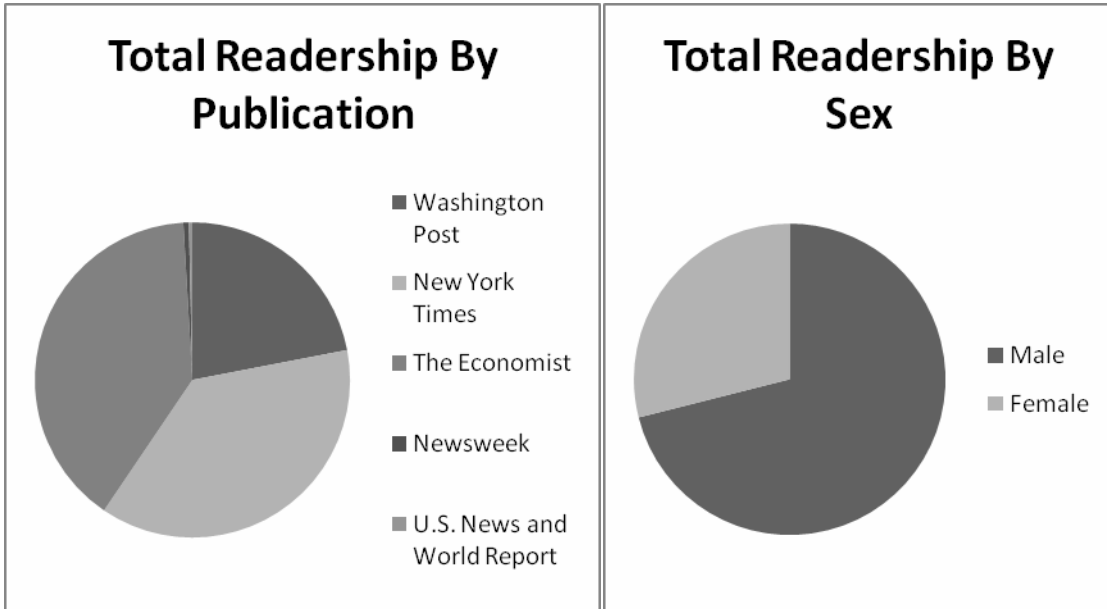


Figure 3.1 Total readership by publication

Figure 3.2 Total readership by sex

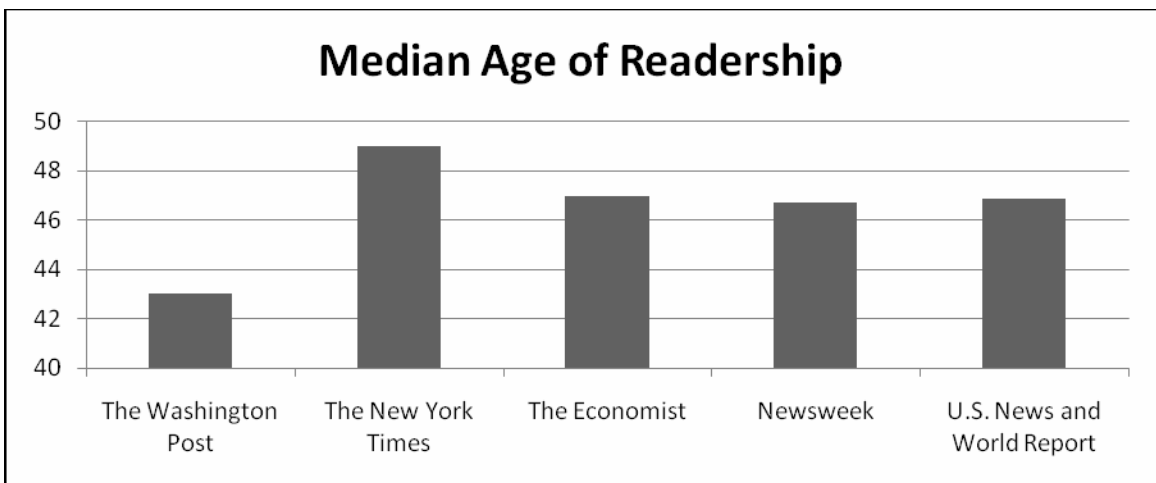


Figure 3.3 Median age of readership in years

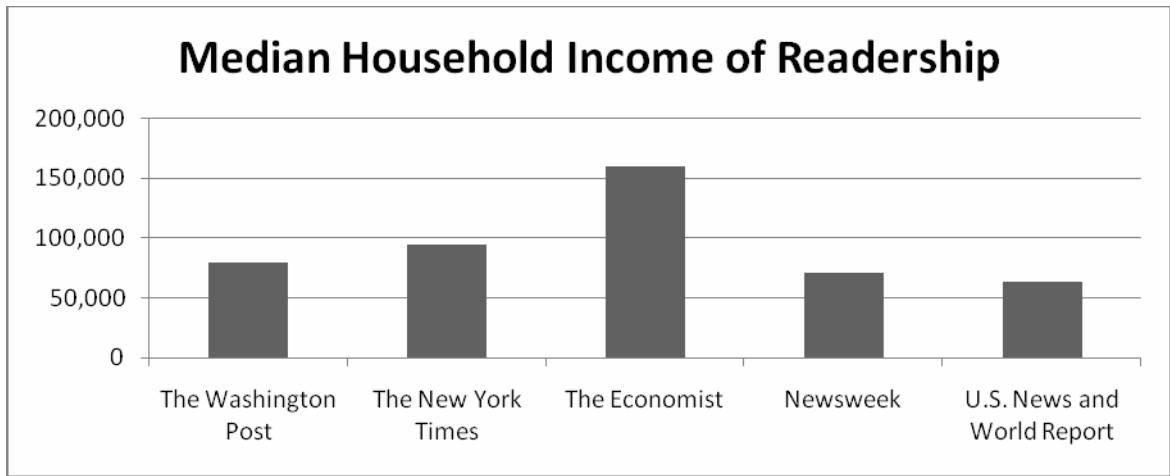


Figure 3.4 Median household income of readership in dollars

### Limitations

It is important to note, from all this publication information, that the population getting the messages in all the articles I studied are generally upper-class, middle-aged, and male. Because of this, this research has important limitations regarding its target audience. This research was based on information provided to a certain portion of the overall U.S. demographic (namely wealthy, educated professionals), and thus my recommendations will be most valid and useful for a similar portion of the U.S. demographic. It is important to note that the environmental organizations which compose the target audience for my recommendations have similar membership demographic qualities, which makes these limitations, while still important to consider, not a huge complicating factor to my research.

Other important limitations to my findings include print-media specific limitations. While my decision to focus on mass print media was an intentional one, it is important to underscore the fact that the print media is only one of many mass media

outlets. The argument can certainly be made that the print media can be used as a proxy for media coverage as a whole, though that certainly has its limitations. Similarly, while global climate change is arguably the most prevalent environmental issue of the present time, it cannot necessarily be used as a proxy for all other major environmental issues.

Specific limitations relevant to the print media include the fact that in recent years, newspaper readership has been shown to be declining rapidly. According to P. Meyer, if the current decline in newspaper readership continues, the last daily newspaper reader in America will disappear in October of 2044 (referenced in Luntz, 2007, p. 187). In 1985, two-thirds of 25-35 year olds had recently bought a newspaper; by 2005, only 37% of that age group read a newspaper on an average weekday (Luntz, 2007). This readership decline is not visible in this age demographic alone. In 1998, over 58% of American adults read a newspaper on an average weekday; by 2005, that number had fallen to 51% (Luntz, 2007). Home subscriptions to newspapers are also declining. In 1985, 67% of households subscribed to one or more daily newspapers; by 2001, only 43% of households received a newspaper (Luntz, 2007). As explained thoroughly in previous chapters, my decision to focus on print media was intentional. In doing so, I was following precedent, as well as taking a section of the mass media that was possible to analyze in great detail in the time frame I had available. While the recent decline in traditional newspaper readership does not make my research irrelevant or inaccurate, it is important to note as a relevant limitation to my research.

Another important limitation to my findings is that I was not able to contact and interview any media practitioners themselves throughout this process. This was due to time limitations, the difficulty of contacting media practitioners themselves, and media

practitioners lying outside the scope of my planned research for this project. One important stakeholder and actor – namely media practitioners themselves – was not successfully contacted and communicated with during the course of this research.

### Conclusion

I had two primary research questions that guided my data collection throughout my research. The first of my primary research questions was, “how do environmental organizations view the mass media and its role in furthering the environmental movement?” The second of my primary research questions was, “how do mainstream mass print media outlets currently cover global climate change?” I used interview- and literature-based research methods to seek the answers to these two primary research questions. In finding the answers to these questions and recognizing the limitations therein, I have been able to come up with the results that follow in Chapters Four and Five and ultimately the conclusions and recommendations that follow in Chapter Six. Chapter Four focuses primarily on the results that came from my interviews, whereas Chapter Five focuses primarily on the results that came from my article content analysis.

## **Chapter Four: Interview Results**

### **Introduction**

In order to understand the current status of the relationship between environmental organizations and mass media outlets, I conducted interviews with the media relations staff of various environmental organizations. These interviews both illustrated the similarities among the various environmental organizations' communication strategies as well as highlight the differences among them. The major similarities include that environmental organizations do actively seek out media coverage in a variety of ways, environmental organizations tend to think that they are successful in acquiring the media coverage they desire, the most common ways in which environmental organizations reach out to media practitioners is through their press releases and by way of their websites and other online media resources, and that each environmental organization tends to see itself as a singular entity, separate from all their other peer and rival environmental organizations. As a result, the media communications strategies of these environmental organizations, while similar, remain distinctly separate.

Though the environmental organizations all have remarkably similar end goals – hoping to effect greater media coverage of environmental issues – the specific strategies the organizations employ in pursuit of this ends differ from one organization to another. These differences in communication strategy execution can be explored and understood through the context of each organization's mission statement and the goals and methods favored within it. The different mission statements of the organizations can be utilized as lenses through which one can examine each organization's media strategy and approach

to media relations. Before delving more deeply into that, however, it is important to more fully understand the themes and similarities that come through across each organizations' media relations strategy.

#### Theme One: All organizations do actively seek media coverage

Across the board, all the media relations professionals I interviewed at the different environmental organizations agreed that media coverage is an important way to spread knowledge about environmental issues. Because of this belief in the media as an important educational outreach tool, all interviewees told me that their respective organizations do in fact actively seek media coverage (for a complete list of all interviewees, please refer to Appendix One).

While each organization seeks media coverage, the particular type and contents of the media coverage they desire varies from one organization to the next. For example, according to Lisa Swann, the communications manager for the National Wildlife Federation (NWF), the NWF actively seeks to produce media coverage specifically about global climate change. In particular, the NWF is interested in increasing solutions-oriented media coverage of global climate change. As a result, they try to direct media coverage towards that direction, writing their press releases in such a way as to highlight their program to reduce greenhouse gas emissions by 2% per year and their efforts to encourage legislation in Congress controlling greenhouse gasses (L. Swann, personal communication, October 12, 2007). Alternatively, the World Resources Institute (WRI) seeks to effect media coverage that equips more people with the scientific knowledge they need to understand global climate change and other environmental issues. Unlike

the NWF, the WRI actively avoids advocating for particular solutions, especially particular solutions that are political in nature (P. Mackie, personal communication, October 22, 2007, N. Kommers, personal communication, November 1, 2007). This is because the World Resources Institute is non-partisan and more interested in people understanding the driving forces behind climate change and letting them draw their own conclusions about what should be done about it.

### Theme Two: Methods of seeking media attention

Almost all the organizations I contacted relied most heavily on two major ways of seeking media attention: press releases and website traffic (J. Barrows, personal communication, April 18, 2007, L. Swann, personal communication, October 12, 2007, D. Kessler, personal communication, October 15, 2007, P. Mackie, personal communication, October 22, 2007, N. Kommers, personal communication, November 1, 2007). The widespread popularity of these two methods of seeking media attention is notable for a few reasons. For one, both methods are relatively inexpensive, which is important to these organizations, as they constantly deal with limited resources. Press releases and online efforts are the primary ways these organizations can hope to effect greater media coverage of environmental issues while risking only minimal losses for themselves. These methods of seeking media attention are also important to note as they point silently to the other ways organizations could seek media attention, should they decide they want to diversify or broaden their media outreach strategies.

Press releases are at the heart of most environmental organizations' media strategies for a variety of reasons. Press releases help brand the organizations that release

them, furthering the goal many of these organizations have of furthering the environmental movement by become household names themselves, thus forcing people to add environmental issues to the list of things that compose their general consciousness. For some organizations, like Greenpeace, press releases serve more of a branding function, whereas for other organizations, like the WRI, press releases serve more as education outreach attempts (D. Kessler, personal communication, October 15, 2007). Press releases also help clarify organizations' research results, forcing the researchers to concisely put forth their findings in ways that the media are more likely to publish and thus the public is more likely to be exposed to. This speaks directly to another reason why press releases are important – they give each organization an opportunity to make their research and events directly relevant to important current issues through a medium that is accessible to most people (P. Mackie, personal communication, October 22, 2007). In this way, organizations can ensure that they are actively adding to the public debate on environmental issues, thus maintaining their relevance to, and active role in, the environmental movement.

Environmental organizations' online efforts, which include the upkeep of their own websites as well as email communication they conduct with similarly-minded professionals, serve as other another important way in which environmental organizations inform media practitioners in hopes of effecting greater mass media coverage of important environmental issues. Like press releases, online efforts are a cheap, effective way for both the environmental organizations and the mass media outlets to get what they need. Journalists are increasingly turning to the internet as one of their prime sources for cheap, efficient, accessible, and reliable information and analysis (P. Mackie, personal

communication, October 22, 2007). Acknowledgement of these electronic needs of journalists is a central part of many environmental organizations' media strategies and further illustrates how, when working together and considering each others' needs, environmental organizations and mass media outlets can be even more effective in achieving their various individual goals.

Environmental organizations acknowledge these online needs of media practitioners in a variety of ways, including by maintaining easily accessible websites, complete with contact information as well as clear, concise, visible major story lines. On each environmental organization's website, there is a clearly marked link connecting the website visitor to the contact information for media-related professionals within the organization itself. These environmental organizations' websites also must provide the viewer – who in many cases is a journalist without any environmental background – a concise, easily navigable overview of that organization's personnel, activities, and output (P. Mackie, personal communication, October 22, 2007). This typically includes employee biographies, summaries of that organization's recent relevant events, and summaries of that organization's recent research findings. The best of these websites are continuously updated and provide external links that direct journalists to other useful summaries of research (P. Mackie, personal communication, October 22, 2007). Like press releases, the internet is an incredibly useful tool that efficiently serves the needs of both environmental organizations and media outlets. Thus, it is not surprising that most organizations rely heavily on the internet in their quest to meet their communication needs.

While press releases and online efforts are the most widely utilized communication methods, there are many other ways in which environmental organizations establish and maintain relationships with mass media outlets. Cultivating personal relationships with individual media practitioners is one incredibly important way in which this is done. In-person meetings and other illustrations of the personal relationships cultivated between media practitioners and environmental organizations does not happen as frequently as press releases are written and online resources are updated simply because maintaining personal relationships is so much more labor- and time-intensive on the part of both the organizations and the media outlets. Despite the more expensive nature of these relationships, due to their more personal and thus often more effective nature, it is important for organizations to cultivate and maintain them. Some environmental organizations recognize this and are able to have regular conversations and meetings with actual individual media practitioners.

Sometimes, the more expensive nature of these relationships is more justifiable than other times. In the instance that a particular story relates directly to current issues of public interest and debate, it is clearly worth actually bringing together researchers, journalists, and other interested parties. As a result, all involved parties are more willing to spend the extra time and effort organizing and communicating with each other (P. Mackie, personal communication, October 22, 2007). Another instance in which it is worth the time and effort for individuals from an environmental organization to have an actual meeting with individual media practitioners is when there is a large running story in the news which the work of a particular environmental organization can help illuminate. For example, global climate change is currently enjoying a lot of news

coverage. Therefore, organizations that are doing climate change related work are currently more likely to receive more mass media attention and coverage. Sometimes, a public event featuring specific contributions from researchers and other related governmental or private-sector parties is an ideal way to get the importance of a particular issue across. These events take considerable amounts of effort from a wide variety of parties to produce. They show the issue at hand being pertinent to a broad base of people and thus a wide array of people are more likely to think the issue is important and listen to what is being said about it (P. Mackie, personal communication, October 22, 2007). Despite the fact that personal relationships are one of the best ways to open lines of communication between environmental organizations and media practitioners, these personal meetings and conversations only happen with regards to the most pressing of current events and issues simply because they are so time, labor, and capital intensive.

This weighing of the relative pros and cons of a given communication strategy for a given issue gets at another factor that impacts the ways in which environmental organizations reach out to mass media outlets – namely the supply and demand of information about a given topic at a given time. The level of frequency and the methods of communications efforts put forth by environmental organizations and media outlets are directly proportional to how much environmental news the public is demanding at a given time (P. Mackie, personal communication, October 22, 2007). If a particular environmental issue is the subject of a lot of public attention and concern, like global climate change is right now, environmental organizations are more likely to reach out to media practitioners in hopes of informing them more specifically about the popular issue, thus impacting the way they cover it. Since audiences are more likely to be interested in

certain issues at certain times, sometimes it is more worth it for environmental organizations to try to direct media attention towards certain environmental issues than it is for them to put forth that effort at other times. This is yet another illustration of the ways in which environmental communications experts are aware of the realities that media professionals face. The media tends to spend time and effort when it needs to on the issues that are the most important to its audiences. Media practitioners study up on the issues of the time in order to catch up with the stories of the time (N. Kommers, personal communication, November 1, 2007).

Environmental organizations generally carry a large portion of the burden of informing media outlets about the environmental issues of the time. However, during times when the public is so clearly demanding more information about a particular issue, media outlets and practitioners increasingly seek out environmental organizations for the latest relevant information. In times of great environmental news demand, media outlets and practitioners tend to be extremely receptive to the efforts put forth by environmental organizations to share their research findings.

All these methods of communication that happen between environmental organizations and media outlets follow a simple business model. The cheapest means of communications, like press releases and online efforts, are used the most often. When there is demand, more labor-intensive methods, like the cultivation of personal relationships, become more frequently utilized. In this way, the goals and restrictions of all parties – in this case, environmental organizations and media practitioners – are met as efficiently as possible.

### Theme Three: Relative importance of media coverage to an organization's success varies

While all the organizations acknowledge the mass media as an important tool for public outreach and education, some of these organizations see themselves and their success as organizations as being more closely related to media coverage than others. This relationship between media coverage and perceived success of the organization as a whole is often complex and multi-layered. Greenpeace, for example, acknowledges that they depend greatly on the media to get their messages out to the public. However, they simultaneously insist that their tactics are not influenced by media coverage (J. Pizza, personal communication, April 30, 2007). Instead, Greenpeace designs their actions to be “creative direct communication” efforts with their target audiences, which includes individuals, multinational corporations, and politicians. While these audiences more often than not get exposed to Greenpeace’s direct communication efforts through mass media outlets, Greenpeace tries very specifically to let the mass media coverage facilitate, but not direct, these efforts (D. Kessler, personal communication, October 15, 2007).

Greenpeace also sees their relationship with the media as following a more complex model than simply “media covers Greenpeace, more people know about Greenpeace, Greenpeace benefits.” In exchange for media coverage and the increase in general awareness that comes along with that, Greenpeace views itself as giving the media “research and analysis of important environmental issues, colorful visuals like banner hangings and mass protests, and more” (D. Kessler, personal communication, October 15, 2007). In this way, Greenpeace views its relationship with the mass media as more mutually beneficial than most other environmental organizations view their relationship with the mass media. Greenpeace is willing to go farther than many other

environmental organizations, as is illustrated through their creative communication efforts and the civil disobedience events they stage and endorse. Since audiences tend to be captivated by such extreme actions, they are drawn to the media outlets that portray them. Since media outlets want to attract larger audiences, they tend to give a lot of air time to Greenpeace for their extreme actions. This results in media outlets enjoying higher viewership and readership ratings while Greenpeace enjoys more coverage – allowing both parties to experience higher rates of “success” (D. Kessler, personal communication, October 15, 2007).

In contrast, the World Resources Institute (WRI) views the mass print and broadcast media as simply the most visible route through which they can reach their broad audience (P. Mackie, personal communication, October 22, 2007). They do not view their relationship with the media as quite as mutually beneficial or multi-faceted as Greenpeace does. They simply think of the mainstream mass media as one important way of communicating with a large amount of people.

#### Theme Four: Each organization’s media relations strategy comes clearly from its mission statement

One way to try to understand environmental organizations’ different views of the media and the resulting variations in their media strategies is by examining these differences through the lens of each organization’s mission statement. By looking at mission statements, each organization’s primary goals become more clear, and the different ways they view their relationships with the mass media make much more sense. Each organization has carefully crafted a mission statement to accurately reflect and

express their specific organization’s purpose. Because they so carefully articulate each organization’s primary purpose (and often the ways in which they envision themselves achieving that purpose), mission statements provide a good backdrop of information that can be used to help explain how and why each organization views their relationship with the media as well as how and why their resulting media relations strategies are slightly different.

<u>Organization</u>	<u>Org.’s Mission Statement</u>	<u>Org.’s Primary Media Strategies</u>
Sierra Club	<p><b>1.</b>Explore, enjoy and protect the wild places of the earth.</p> <p><b>2.</b>Practice and promote the responsible use of the earth's ecosystems and resources.</p> <p><b>3.</b>Educate and enlist humanity to protect and restore the quality of the natural and human environment.</p> <p><b>4.</b>Use all lawful means to carry out these objectives” (The Sierra Club, 2007).</p>	Press releases, website management, Non-radical, easily-accessible stories with a human-interest focus.

<u>Organization</u>	<u>Org.'s Mission Statement</u>	<u>Org.'s Primary Media Strategies</u>
National Wildlife Federation (NWF)	“Educate, inspire, and assist individuals and organizations of diverse cultures in conserving wildlife and other natural resources and to protect Earth’s environment in order to achieve a peaceful, equitable and sustainable future” (National Wildlife Federation, 2007).	Press releases, website management, solutions-oriented coverage of issues with widespread local appeal.
Greenpeace	“Use peaceful direct action and creative communication to expose global environmental problems and to promote solutions that are essential to a green and peaceful future” (Greenpeace, 2007).	Press releases, website management, radical “creative communications” and civil disobedience. Visual, action-oriented, media-attracting.
World Resources Institute (WRI)	“WRI is an environmental think tank that goes beyond research to find practical ways to protect the earth and improve people’s lives. Our mission is to move human society to live in ways that protect the earth and improve people’s lives. Our mission is to move human society to live in ways that protect Earth’s environment and its capacity to provide for the needs and aspirations of current and future generations” (World Resources Institute, 2007).	Press releases, website management, facilitating direct communication between scientists and policymakers often beginning as media coverage in the mainstream press.

Figure 4.1: Environmental organizations’ mission statements

The Sierra Club’s mission statement, for example, is very human-centric. The Sierra Club is primarily concerned with humans protecting and restoring nature so that humans can then explore and benefit from all that nature has to offer them. It should come as no surprise, then, that their primary media strategies tend to be very human-

focused, stressing repeatedly that action must be taken to protect the environment so that humans can continue to live happily near nature and enjoy the amenities it has to offer.

Similarly, one can make sense of the National Wildlife Federation's media strategy through understanding their mission statement. Since their mission statement is so educationally-focused, it should come as no surprise that the NWF's media strategy is largely devoted to increasing awareness of global climate change, specifically by educating their audiences about global climate change impacts on their own local environments. The NWF has published a series of public reports on the regional impacts of global climate change. By focusing specifically on local harbingers, which are what people tend to be able to latch on to and remember the best, the NWF's educational mission can be achieved (L. Swann, personal communication, October 12, 2007). As a result, the NWF's press releases and other media communication strategies vary by region. In the west, they focus more on wildfires, whereas in the northwest states they focus more on salmon fisheries, while their mid-Atlantic press releases focus more on hunting and fishing along the Chesapeake Bay (L. Swann, personal communication, October 12, 2007). By focusing their media efforts in locally-specific ways, the NWF is more able to successfully reach the educational goals articulated in their mission statement.

As the mission statement of Greenpeace is more action-oriented, their more radical ways of getting their message out to the public through the mass media is not surprising. Greenpeace believes that their willingness to actively "go further" than other environmental organizations results in greater media coverage, as the media tends to be drawn to their extreme, visually-compelling, attention-grabbing stunts (D. Kessler,

personal communication, October 15, 2007). Due to the action-oriented basis of their mission statement, as well as the fact that they are a membership organization that relies heavily on monetary support from its members, Greenpeace has a vested interest in media attention that specifically mentions their organization by name. As a result, the Greenpeace name and logo has come to serve as a type of brand, representing environmental activism. Like any brand, Greenpeace needs to carefully create and constantly manage its image. Thus, media coverage focusing on them as an individual organization with specific goals and methods of achieving those goals is important. Other environmental organizations that have less of an action-rallying agenda than Greenpeace does are typically less interested in getting their specific organization's name air time for the sake of getting it air time (N. Kommers, personal communication, November 1, 2007). It is important to note, however, that while other organizations spend less time actively managing their image than Greenpeace does, they still acknowledge that "branding" is something to keep in mind when it comes to their organization's media relations strategies (P. Mackie, personal communication, October 22, 2007). While Greenpeace brands itself more actively than most other environmental organizations, no organizations totally overlook the importance of name-recognition for their survival and the success of their missions.

Still other organizations, like the World Resources Institute, view their relationship with the media differently. As their mission statement articulates, WRI is a non-partisan environmental think tank. As such, they are not legally allowed to advocate for specific policies. However, their experts can – and do – advise policymakers and offer them independent research findings that go on to inform their policymaking

decisions (P. Mackie, personal communication, October 22, 2007). One important pathway WRI uses to inform public debate and indirectly influence policy is through their engagement with the media. Through sharing their research findings with the mass media, WRI is able to build up their public reputation as a respectable, non-partisan establishment that policy makers can go to when they need environmental advice and voters can trust as being politically neutral (P. Mackie, personal communication, October 22, 2007). Because politicians tend to be concerned with the average constituent, and because the average constituent often gets information from the mass media, a piece of research often only becomes “real” to politicians when it appears in a newspaper (P. Mackie, personal communication, October 22, 2007). Because of this, politicians are more likely to take note of research once it has been published for a mass audience through the mainstream media. This illustrates that once the mass media pays attention to an issue, everyone pays attention to the issue. In order to remain relevant in public debate and policy making, politicians also must pay attention to the issues getting mass media coverage. Policymakers also tend to pay attention to mass media coverage of current events and scientific issues because by the time these things reach the mass media, they as politicians are likely to be asked about the issues when they appear in public (P. Mackie, personal communication, October 22, 2007). At that point, if they are ill-informed about the issue at hand, they lose a lot of respect amongst their constituents, which damages them politically. This damage, in turn, winds up getting amplified as their ignorance about the important issue is further broadcast through the mass media.

Despite all these differences between the media relations strategies of each organization, it is important to remember the ways in which they are all the same. Not

only do all these organizations view the media as an important tool to utilize in getting their messages out, they each actively seek media coverage of themselves as organizations, their research findings, and their activist events. Acquiring media coverage, particularly the types of media coverage that these organizations desire, is difficult, but environmental organizations and their associated communications professionals tend to be up to the unique challenges that working with the media pose them with (J. Barrows, personal communication, April 18, 2007, L. Swann, personal communication, October 12, 2007, D. Kessler, personal communication, October 15, 2007, P. Mackie, personal communication, October 22, 2007, N. Kommers, personal communication, November 1, 2007).

Theme Five: Organizations consider themselves successful in effecting media coverage

Another major theme that came through across several interviews is that each organization tends to think of their efforts to effect more media coverage as successful ones. About half of the organizations specifically mentioned that they track the number of media hits their organization's name or a particular campaign their organization is working on receives in a variety of publications over time. For example, the NWF believes it is successful in gaining media attention because they are "regularly quoted in Time Magazine, the New York Times, the Washington Post, and on television as well as regional media" (L. Swann, personal communication, October 12, 2007). Similarly, Greenpeace keeps active track of the number of times their organization's name comes up on media searches (J. Pizza, personal communication, April 30, 2007). Even the World Resources Institute, which is a think tank and thus does not aim to be a household

name like many other environmental organizations do, tracks the success of its media relations strategies through how frequently they are cited or referenced in stories appearing in print articles, on television programming, and on commercial radio (P. Mackie, personal communication, October 22, 2007). WRI is more likely than these other organizations to acknowledge the shortcomings of this particular method of tracking “success,” however they still do it (N. Kommers, personal communication, November 1, 2007). Perhaps this is because their success as an organization is not dependent on the public recognizing their name immediately. For most of these organizations, however, media representations mentioning or citing their organization by name, while not the only measure of success, is generally believed to be a good indication of success.

Theme Six: All organizations face challenges with respect to their environmental communication strategies

Despite their continual efforts to work with a variety of media outlets, there are many challenges that all these organizations face when it comes to their environmental communication efforts. These challenges include the limited funds the organizations have to work with, the ebb and flow of the general public’s interest in environmental issues, and an ever-increasing list of environmental issues that can easily overwhelm even the most dedicated of environmentalists (D. Kessler, personal communication, October 15, 2007). Due to such challenges, these organizations must remain good-humored about their media communications efforts and keep their communications work

in perspective, remembering that there are many other important things their organizations are continuously working on.

Many of the communications professionals I interviewed mentioned that trying to work cooperatively and continuously with the mass media is a challenging endeavor. Building personal relationships with individual media practitioners, for example, while an effective way to directly communicate with mass media outlets, is extremely difficult, as “journalists come and go from publications, from beats, and even from careers” (P. Mackie, personal communication, October 22, 2007). Environmental organizations also have to deal with the many unknowns that come along with seeking media coverage. These unknowns include both questions of how to effect greater media coverage as well as questions of what the actual personal and political results of that media coverage can be expected to be (P. Mackie, personal communication, October 22, 2007, N. Kommers, personal communication, November 1, 2007). It is also challenging for these environmental organizations and their affiliated researchers to frame their findings and efforts in ways that are concise and compelling enough to be palatable to a mass audience and thus conducive to mass media coverage (P. Mackie, personal communication, October 22, 2007). Because environmental issues tend to be interdisciplinary and multi-faceted, they are often particularly difficult to explain in a way that is simple enough to invite mass media coverage.

The media relations and communications professionals at all the different environmental organizations seem to take the challenges associated with working with the media in stride. They noted that while it is sometimes extremely challenging to work with the media, it can also be extremely rewarding (P. Mackie, personal communication,

October 22, 2007). Given what is at stake as well as what they stand to gain, media relations professionals at a variety of environmental organizations seem more than willing to do their best to work with the mass media, taking the setbacks they inevitably face with the appropriate grains of salt.

#### Theme Seven: Each organization works independently

Given the important differences in the media strategies of each environmental organization as explained through the previous exploration of their mission statements and their resulting media communications strategies, it is clearly unreasonable to expect all environmental organizations to have identical media strategies. However, given their common ground – that they are all organizations working towards the common goal of gaining more public knowledge about, concern for, and action regarding environmentally-related issues – it seems like a missed opportunity that these organizations do not work together on their media strategies more often. In every interview I conducted, I was surprised at how individually all these organizations seemed to view their particular environmental communications strategies. Greenpeace tracks only Greenpeace-specific media hits (J. Pizza, personal communication, April 30, 2007, D. Kessler, personal communication, October 15, 2007). Similarly, the NWF tracks publications that cite them or their work specifically (L. Swann, personal communication, October 12, 2007). No interviewees mentioned that they or their organization keep track of the media coverage that mentions any of their peer organizations.

As shown throughout this chapter, all the different environmental organizations, despite their slightly different missions, have remarkably similar goals, strategies, and

experiences when it comes to their efforts to increase mass media coverage of environmental issues. Given this tremendous common ground, it seems like an unfortunately missed opportunity that they do not capitalize on their shared experiences, communicating and collaborating with each other more often. It seems like it would be fairly easy – and certainly mutually beneficial – for them to coordinate their media strategies, piggy-back off each others’ successes more often, and learn from each others’ mistakes more often. By doing so, it seems that all the different organizations could magnify the results of their efforts, while maintaining their own unique approaches to the issues in the first place, making each of them more effective and efficient while still preserving their individuality.

### Conclusion

Mass media outlets seek to communicate important issues to their audiences. Increasingly, environmental issues are things that mass media audiences care a lot about. This trend is particularly poignant currently when it comes to the issue of global climate change. Similarly, environmental organizations are increasingly realizing that they must actively reach out and use mainstream modes of mass communication in their efforts to spread word about environmental issues.

The combination of these realizations from both environmental organizations and media outlets has created something of a perfect storm for environmental communications today. The time is ripe for environmental organizations to actively work with media outlets in order to spread word about environmental issues – particularly currently salient ones, like global climate change. Best of all, all the associated and

necessary key players – namely media communications professionals at environmental organizations – know and actively acknowledge this fact. While environmental organizations individually realize this and are working hard to make their media communications efforts as meaningful and publically accessible as possible, they are missing the magnifying results that teamwork, cooperation, and collaboration with other similar organizations would result in. That teamwork would compound all environmental communications efforts, making each that much stronger individually – and that much more powerful overall.

## **Chapter Five: Media Analysis Results**

### **Introduction**

Several interesting themes came through the content analysis of print media articles about global climate change. In order to more fully understand the themes that this coding process uncovered and use these themes to come up with accurate conclusions and meaningful recommendations, I first had to understand the context in which the articles were published – a context in which climate change is enjoying increased momentum and prevalence on the public’s consciousness. I explored this context by examining the frequency with which climate change articles appeared, as well as understanding the events that happened during the time in which the articles were published. In this chapter, I examine the articles published between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007 in depth, through the lens of the themes that came through across all or most of the articles. Particularly important and interesting themes that came through include: that the articles tend to frame global climate change in political ways; that many complex characters and stakeholders are mentioned and portrayed throughout the articles; that when one institution is mentioned in an article, its peer institutions tend to be lumped together and mentioned alongside it; and that the solutions offered are again politically-framed, most often directed specifically towards U.S. politicians. Using these themes, I have been able to come up with the conclusions and recommendations that conclude this thesis.

**Setting the Scene: media attention relating to climate change is increasing over time**

Before delving into the themes that came across through studying the content of the articles, it is also important to understand the media context in which the articles were published. In addition to the specific information on climate change related current events explained above, it is important and interesting to note that overall, the number of published articles that use the words “global climate change” and/or “global warming” has increased rapidly over the last couple of decades (for specific methods on acquiring these numbers, please refer to Appendix Three).

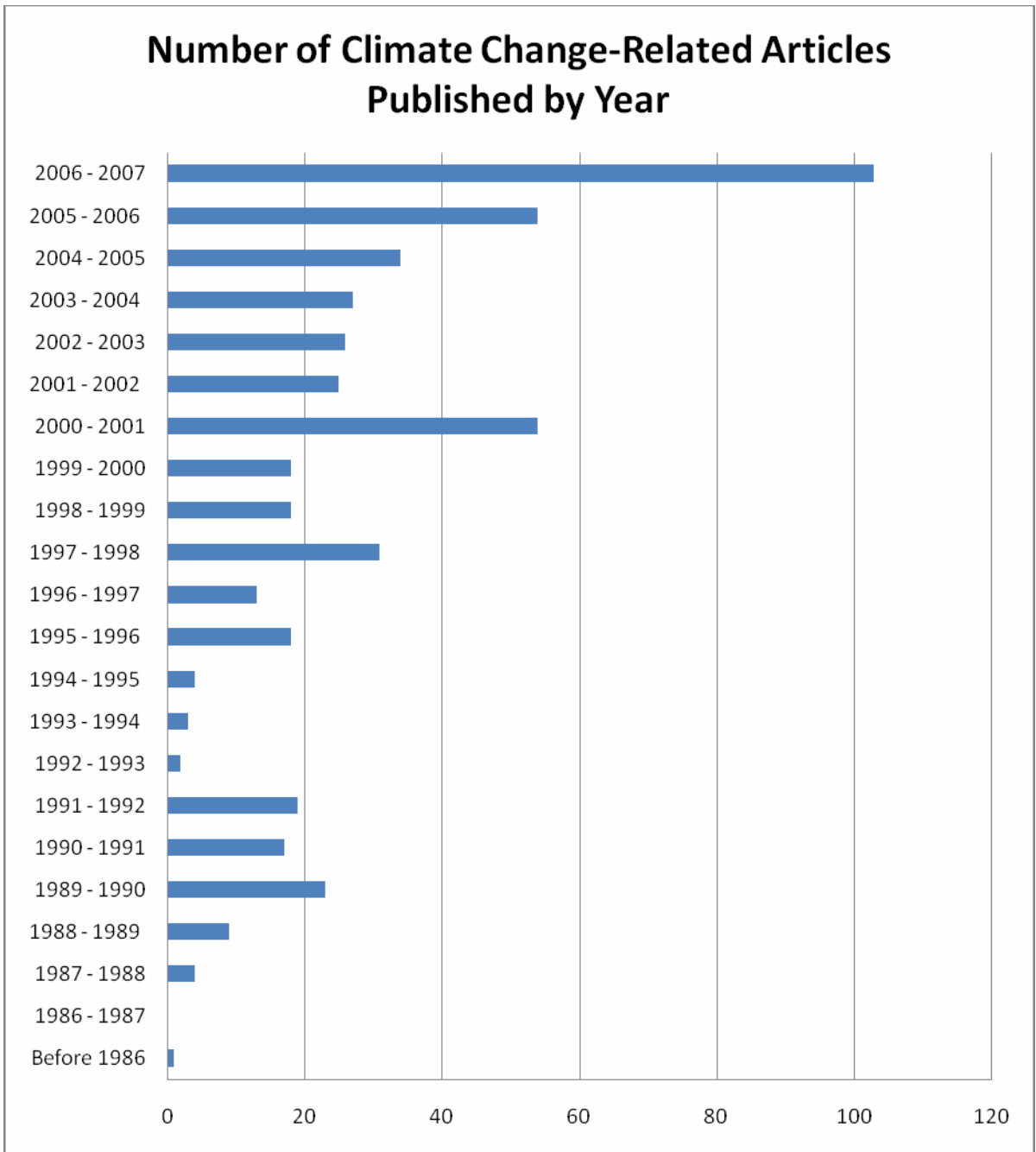


Figure 5.1: Number of climate change-related articles published by year

Some of the spikes that can be seen in Figure 5.1 can be explained by the fact that large-scale environmental legislation was up for authorization in a given year. For example, the spike that can be seen between the years 1989 and 1992 can be partially

explained by the update of the Clean Air Act that was happening around that time. Similarly, the 1997 – 1998 spike could be attributed to the events surrounding the December 1997 Kyoto Conference, at which global climate change was a predominant issue (McCright & Shwom, 2008).

### Setting the Scene: the year in climate change

In order to fully set the scene for this chapter, I want to highlight some major environmental events that have happened recently, beginning with previous major climate change related events and focusing especially on those that happened between the dates of September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007, when the articles coded and analyzed in detail here first appeared in print.

At the end of August, 2005, Hurricane Katrina devastated New Orleans, Louisiana. The hurricane was an example of the type of extreme weather events that are predicted to become more frequent as climate change continues to occur. Hurricane Katrina brought the issue of global climate change very close to home for many Americans in a way – and on a scale – that had not previously happened. A few months later, Al Gore’s documentary on climate change, *An Inconvenient Truth*, premiered at the Sundance Film Festival. In May of 2006, the film opened in New York and Los Angeles, ultimately spreading to mainstream movie theaters across the country. Its immense popularity reflected the increased interest and awareness on the part of Americans about issues surrounding climate change.

Specifically between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007, a few major climate change related current events occurred as well. In January of 2007, President

George W. Bush mentioned climate change in his State of the Union address for the first time. Previously, the President had been one of the most outspoken (not to mention powerful) skeptics of climate change. In February 2007, the Intergovernmental Panel on Climate Change (IPCC) released its Fourth Assessment Report, “Climate Change 2007.” According to this very well respected group of scientists from many different countries, the results that can be expected from climate change are now predicted to be even more severe than previously thought. On July 7<sup>th</sup> 2007, Live Earth, a world-wide series of concerts designed to rally support around issues of climate change, was held. Live Earth was planned by Kevin Wall’s organization “Save Our Selves” and extensively backed and promoted by Al Gore, as well as the Alliance for Climate Protection (Wikipedia, *Live Earth*, 2008). It is over the background of these major climate change related current events that the articles discussed in detail here were published.

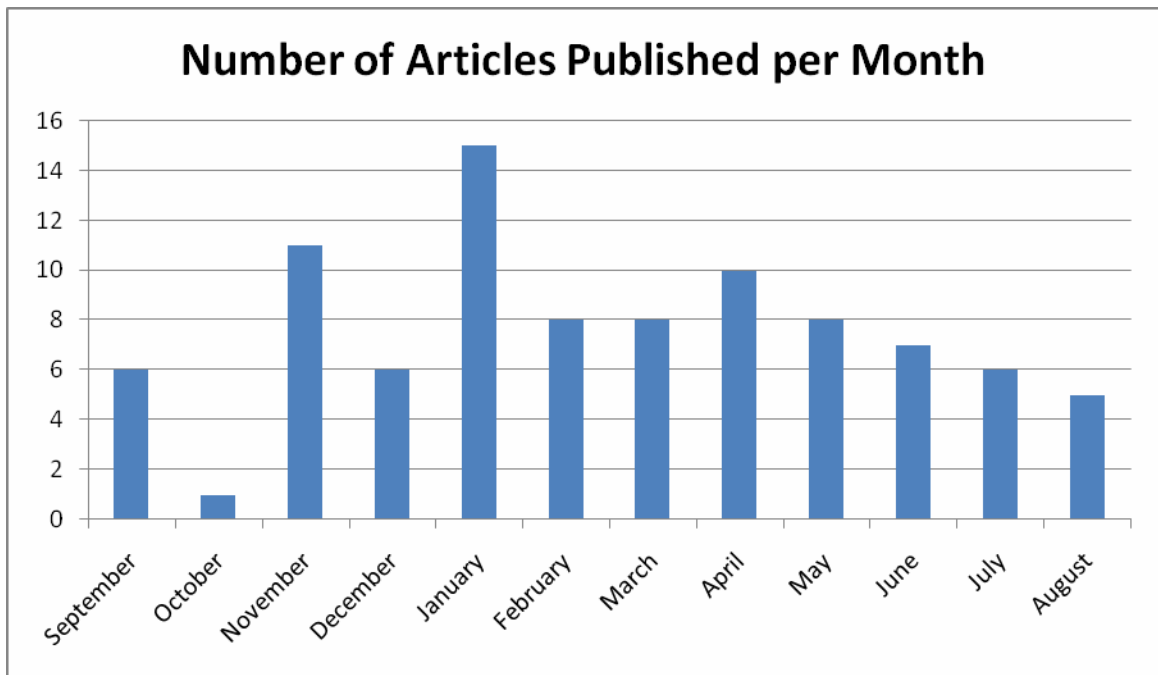


Figure 5.2: Number of articles published per month

Despite the fact that these events happened at very different times throughout the year, examining the number of articles published by month or season did not result in much notable differentiation. For example, there were on average no more climate change-related articles published in the summertime as opposed to the wintertime, or in October as opposed to April. Some studies have suggested that political events and the release of scientific reports are key drivers influencing the amount of media attention climate change receives (McCright & Shwom, 2008). The data shown in Figure 5.2 implies that while the release of scientific reports may have some impact on media attention to climate change, it does not make too huge of a difference.

As seen in Figure 5.2, the amount of print media attention climate change received was relatively stable throughout the year, with only a couple of months during which the number of articles published deviated greatly from the 7.5 average and median number of articles. The largest spike in climate change related articles happened in January, which is the month in which President George W. Bush mentioned climate change in his State of the Union address. February, the month during which the IPCC report was published, did not result in climate change enjoying any more or any less media coverage than the average month. Similarly, July, the month in which the Live Earth concerts were held did not result in any major media spike in climate change media coverage. While examining this data by month holds some implications for what is likely to result in more media coverage, it does not show anything particularly striking with complete certainty. On the whole, however, as shown in Figure 5.1, the theme that

articles relating to climate change are being published at an increasingly rapid rate is clearly shown over several years' time.

Theme One: Venue, authorship, and article characteristics

When looking at the articles published between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007 as broken down by the publications they appeared in, the following pattern emerged.

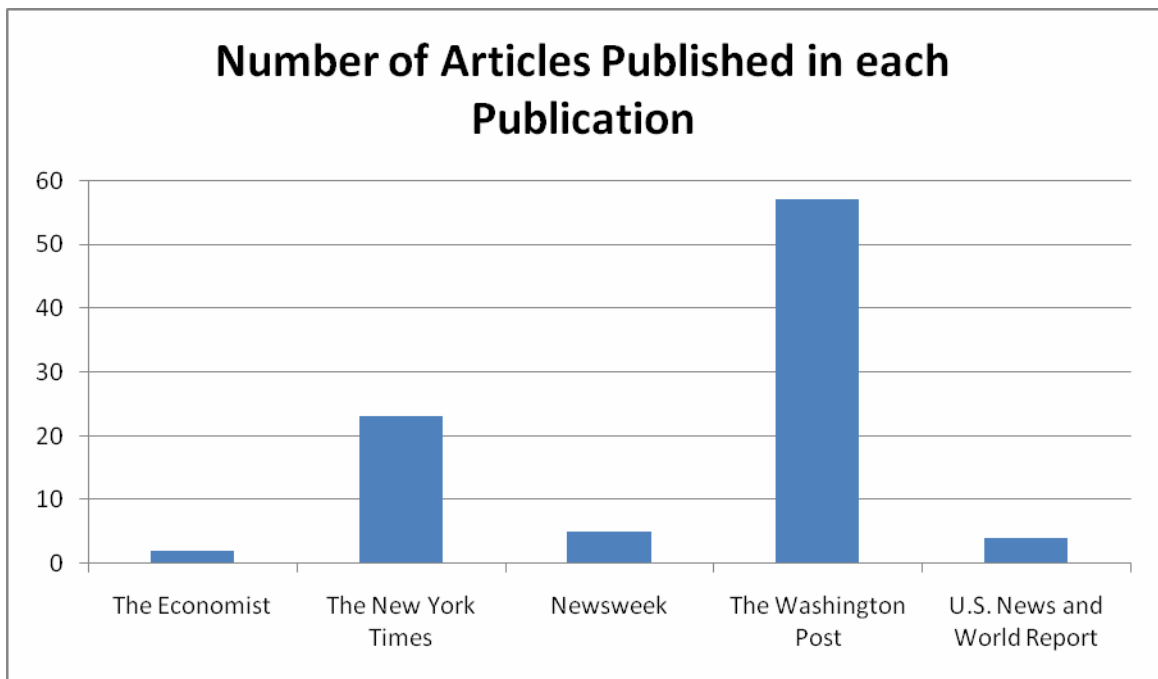


Figure 5.3: Number of articles published in each publication

The majority of the articles (57 out of 91) published about climate change were published in the *Washington Post*. The *New York Times* published the second largest amount of

climate change related articles (23 of 91), followed by *Newsweek* (5 of 91), then *U.S. News and World Report* (4 of 91), and finally, the *Economist* (2 of 91).

In terms of authorship, it is interesting to note that over 20% of the articles – 19 out of the 91, to be exact – were co-authored by two or more people. Aside from the prevalence of co-authorship, however, the authorship of those articles followed few reliable patterns. Some authors were cited in the bylines of many articles, but for the most part, an author having written one climate change related article did not seem to indicate that an author was necessarily going to be writing a lot of climate change related articles in the future.

While not every person who published one article on climate change was likely to publish another, a small cohort of journalists came up time and time again on the bylines of the articles. Juliet Eilperin of the *Washington Post* authored or co-authored the most of anyone in this sample set. Her name can be found in the bylines of six out of the 91 articles. Also from the *Washington Post*, J. Freedom du Lac authored or co-authored four of the 91 articles, while fellow *Washington Post* staffer David A. Fahrenthold's name appeared on three of the 91 articles' bylines, and Peter Baker, Fareed Zakaria, Kevin Sullivan, Sholnn Freeman, Christopher Lee, and Marc Kaufman, all of the *Washington Post*, authored or co-authored two articles apiece. From the *New York Times*, the authors with the most climate change related bylines were Felicity Barringer, who authored or co-authored a total of five out of the 91 articles, and Matthew L. Wald, Andrew C. Revkin, Linda Greenhouse, and Mark Mazzetti, all of whom authored or co-authored two climate change related articles. Finally, Bret Schulte of *U.S. News and World Report* also published two climate change related articles over the course of the year. With these

notable exceptions, the majority of the articles were written by authors who only published one climate change related article over the course of the year.

Between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007, both the *New York Times* and the *Washington Post* had fairly even numbers of people cited as writing more than one climate change related articles. It is interesting to note that of the four articles published in *U.S. News and World Report* between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007 about global climate change, Bret Schulte is the lone author of two of them. While it is noteworthy that certain authors come up again and again on the bylines of climate change related news articles, there are several fold more authors whose names only appeared on one climate change related article. Thus, on the whole, article authorship varied greatly, with the few notable exceptions listed above.

75 out of the 91 articles that came up when the keywords “global climate change” and/or “global warming” were typed into LexisNexis were primarily about global climate change. The remaining 16 articles only briefly mentioned global climate change or global warming in the body of the text. It is important to note, however, that while most articles that published the words “global climate change” and/or “global warming” were articles primarily about climate change, the length, and therefore the depth of engagement, of the articles varied considerably. On average, each climate change related article contained 983 words. The lowest number of words in an article was 94, while the largest number of words in an article came to 5,149. About one third (30 out of 91) of the articles included graphics of some sort, 22 of which included photographs specifically. Other types of common graphics included, in order of popularity from most

frequently used to least frequently used: drawings, graphs, maps, time lines, and satellite images.

Theme Two: Geographic focus of the articles is nationally-focused and U.S.-specific

Geographically, the focus of the articles overwhelmingly tended to be national. My coding methods primarily involved noting in Excel spreadsheets the major ways in which the articles framed climate change with regards to certain categories. For example, if an article talked about climate change as an issue that a country (for example, China or the U.S.) had to deal with on a national level, it got coded as “National – China” or “National – U.S.” respectively. If an article framed climate change as an issue that many countries (for example, China and the U.S.) had to deal with together, it got coded as “International” (for specific details regarding coding methodology, please refer to Appendix Four).

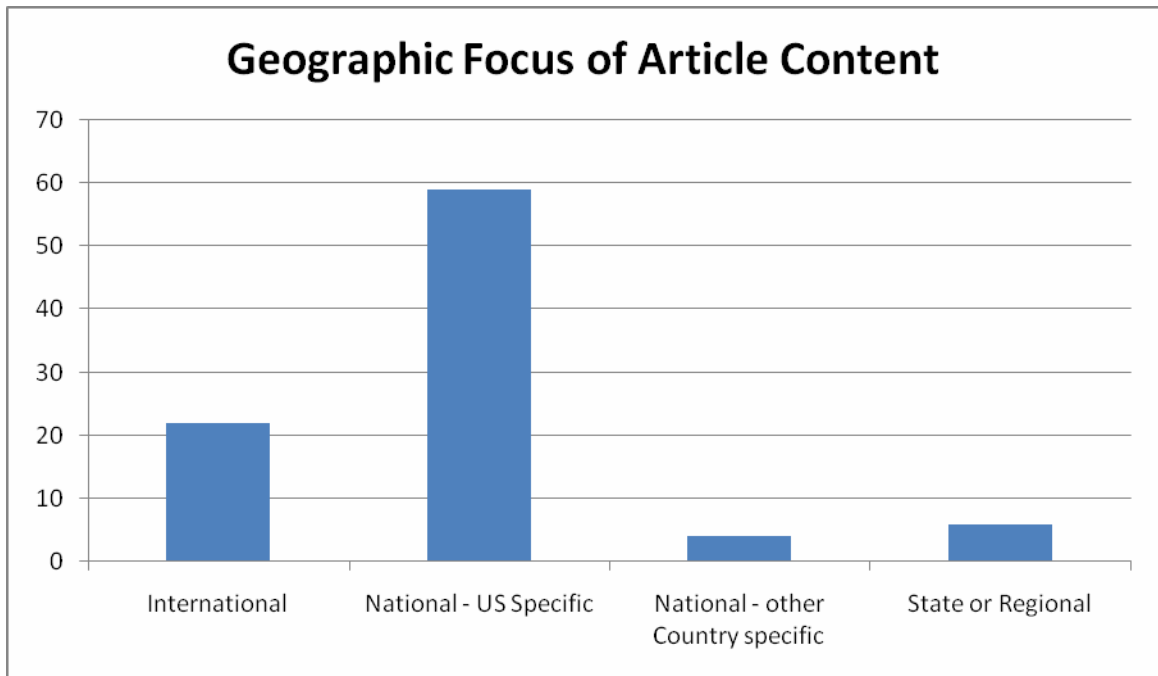


Figure 5.4: Geographic focus of article content

Geographically speaking, the majority of the articles framed climate change related issues in a very U.S.-centric way. Of the 63 articles that focused on climate change related issues through the lens of one country in particular, 59 of them focused specifically on the U.S. 22 articles approached climate change as an international issue that needed specifically international attention. While an international focus represents the second-highest geographic focus, 22 internationally-focused articles pales in comparison to the 63 total articles that focused on climate change as an issue that must be dealt with at the national level. A minority of articles (only six) framed climate change as being an issue that particularly impacts states or regions, though many more articles cited states and/or regions as being the front-runners in coming up with innovative, effective ways of dealing with the effects of global climate change.

### Theme Three: Articles are placed in the A-section

Examining where in each publication climate change related articles tend to appear the most frequently reveals a distinct pattern. The majority of the articles containing the words “global climate change” and/or “global warming” (51 of 91) appeared in the A section of newspapers. Many of the A section articles were editorials (17 out of 51), and six more editorials also appeared in the B section of the papers. 12 of the 91 articles appeared in the “Metro” or “Style” sections. Ten articles were published in a “Financial” section (including *Economist* articles). Only four articles published about climate change were printed in a “Science” section. In order to fully understand the implications of where all these articles appeared, it is important to understand which sections of newspapers are typically used for what purposes.

The front page, or A section, of trendsetting newspapers like those used in this study is typically reserved for major national and international news (McDonogh, Gregg, & Wong, 2001). Along with major national and international news headlines, editorials are usually included in this front page, or A newspaper section. Sometimes editorials also appear in the B section of newspapers. Editorials are articles by a publication’s editor, editorial board, or publisher that express the opinions of the editor, editorial board, or publisher as appropriate (Wikipedia, *Editorial*, 2008). An op-ed, called such because it is short for “opposite editorial,” is printed across from editorials. Op-eds are similar in content and form to editorials, but they represents the opinion of an individual, who may or may not be affiliated with the newspaper itself (Wikipedia, *Editorial*, 2008). The remaining sections of newspapers – those that do not only publish articles about current

events and political happenings – have been added to major newspapers over time as a way for them to compete with their other print media competition (McDonogh, Gregg, & Wong, 2001). These sections typically labeled with letters “C” and later, bearing names like “Style” and “Finance,” deliver features articles focusing on topics of local concern as well as topics such as home improvement, sports, finance, and science (McDonogh, Gregg, & Wong, 2001). Given these conventions about where certain articles are placed in the newspaper, one can have a general idea of how articles are framed by looking simply at where in each newspaper an article is placed.

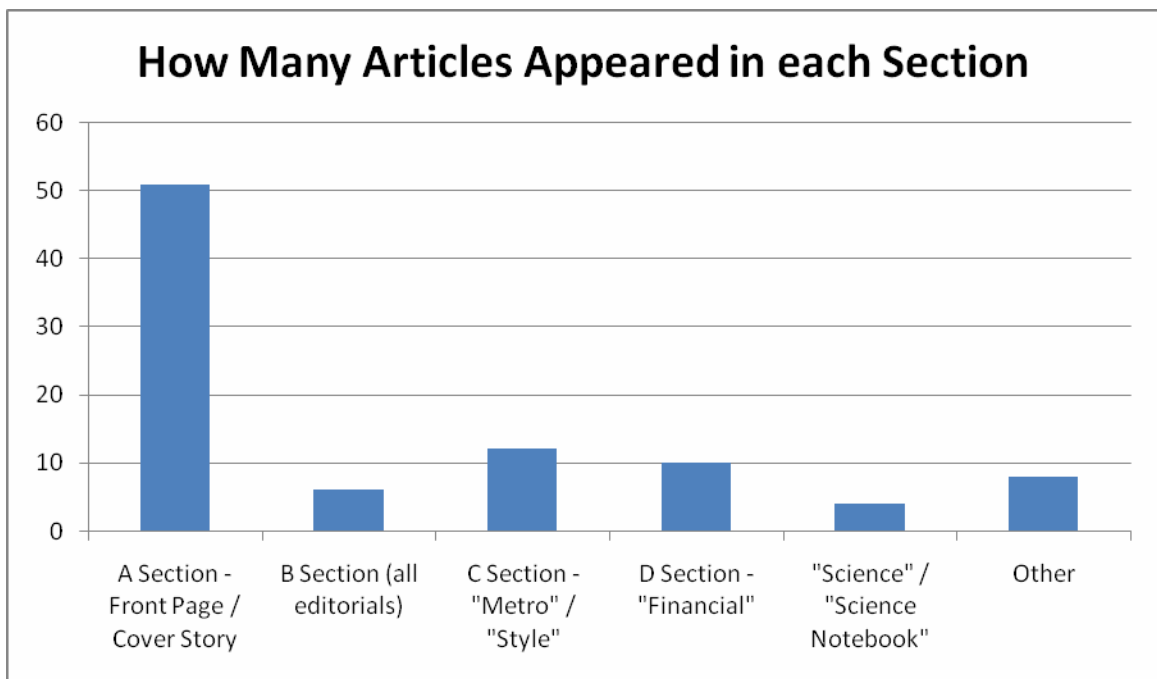


Figure 5.5: How many articles appeared in each section

The fact that so many articles were published in the A or B sections of the newspapers is evidence of the fact that the frames used in these articles were most often

political. The A and B sections of papers are typically the “National” or “International Affairs” sections. Speaking further still to the fact that these articles frame climate change in politically-specific ways, the solutions offered were also overwhelmingly geared towards policymakers (see “Theme Nine” section below). The prevalence of editorials shows that global climate change is not only political, but also salient to the general public. In total, 23 of the 91 articles were editorials – either reader letters or staff editorials put together by the publications’ own writers. 12 of those were staff editorials while 11 were published as reader letters. There were no editorials or reader letters published in the magazines about global climate change – all 23 of the climate change related editorials were published in the A or B sections of the *New York Times* or the *Washington Post*.

A total of 12 of the 91 articles appeared in “Style” or “Metro” sections, which are areas of the newspaper that tend to focus on the intersections of current events and the everyday lives of the publications’ readership. The prevalence of articles in these sections speaks to the fact that climate change is not seen as an issue that is isolatable – instead, it permeates through many layers of intersecting areas of everyone’s lives. The fact that ten of the articles were published in a “Financial” section shows that comparatively fewer people are looking at climate change through a primarily economic lens. The fact that so few articles (only four) examined climate change from a specifically scientific lens further illustrates how climate change has become more of an overall lifestyle and even more overwhelmingly a political issue than it is a specific topic that fits neatly within the scientific framework it was previously limited to.

#### Theme Four: Causes of climate change

Almost all of the articles directly answer the question of what has caused climate change as well as what can be done about it now that it is happening. Many of the articles went so far as to specifically mention actions that have directly caused or contributed to climate change, as well as individuals and groups that have been particularly helpful or detrimental to efforts involved in trying to solve and/or remediate the effects of climate change that are currently happening.

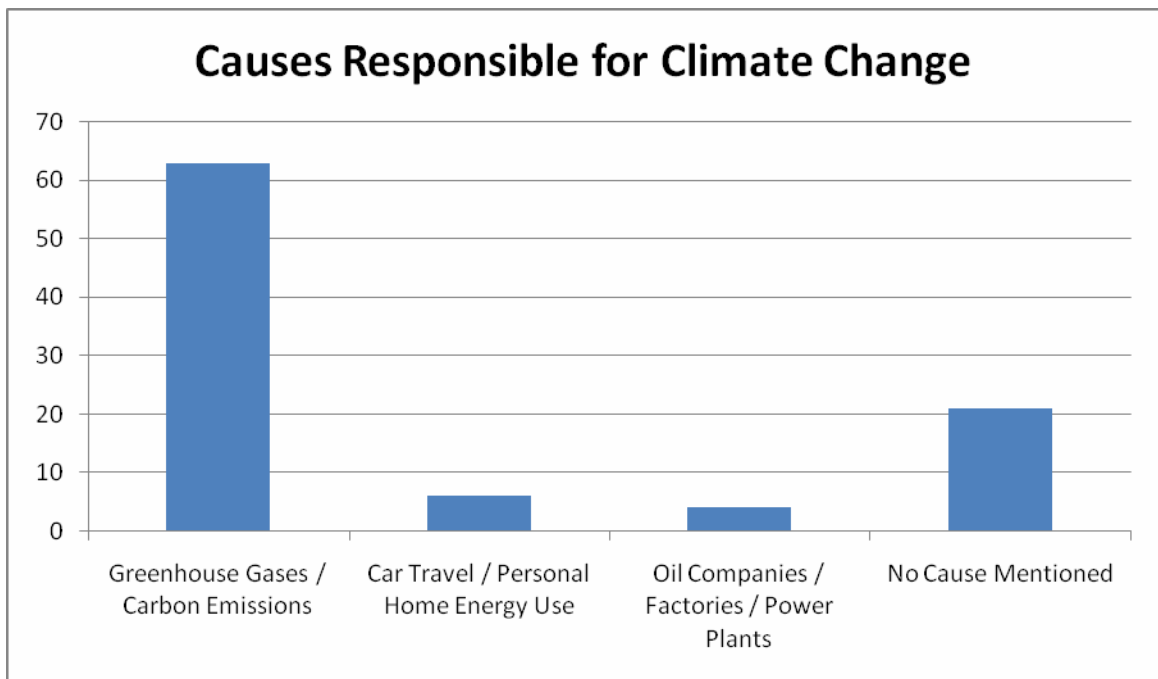


Figure 5.6: Causes responsible for climate change

All told, 70 of the 91 articles mentioned at least one cause of global climate change. Again, for a detailed description outlining the coding process for acquiring this data, please refer to Appendix Four. While only 21 articles did not mention a cause of

global climate change, many of the 70 articles that did mention a cause of climate change offered very simplistic explanations of these causes of climate change. 63 articles offered explanations of climate change through the simple terms “greenhouse gases” and/or “carbon emissions.” Very few articles went into further detail about what makes a gas a greenhouse gas or how exactly carbon emissions lead to global climate change. It is unclear whether this theme reveals a missed opportunity to educate the masses or it is simply indicative of the authors’ understanding that the general public already has some sort of working knowledge of the science behind global climate change. The former would indicate a huge oversight on the part of the publications, while the latter simply shows authors understanding the extent to which people currently comprehend global climate change. While most articles did not go in-depth about the specific causes of climate change, a few did mention specific contributing factors to climate change. Six articles mentioned car travel or personal home energy use as specific contributors to global climate change. Four mentioned big oil companies, factories, and/or power plants as primary reasons behind climate change.

Several articles engaged with the causes of global climate change further still, citing different, often more complex versions of why climate change started and why it has continued to happen. One article mentioned that temperature fluctuation is a natural process (Lee, 2006). One article blamed the Bush administration’s practice of “shelving scientific findings” as a contributing factor to global climate change (Kerry & Rucker, 2006). Another article mentioned outdated building technologies as partially to blame for climate change (*Washington Post* editorial staff, November 20, 2006). Still another article mentioned that economic instability decreases a community’s ability to cope with

global climate change (Callimachi, 2007). The articles that mentioned these more nuanced factors relating to climate change tended to be articles specifically about that larger cause or issue. Thus, the articles that simply cited “greenhouse gases” and/or “carbon emissions” as causes tended to be able to cover more ground about other areas of interest related to climate change. On the other hand, the comparatively few articles that cited more complex contributing factors to climate change tended to be primarily about those more complex contributing factors than global climate change in general.

#### Theme Five: Consequences of climate change

Many articles specifically mentioned some results that can be expected to occur as a result of climate change, though many others contained no mention of the consequences of climate change. In total, 38 out of the 91 articles specifically mentioned one or more things that are predicted to happen as a result of global climate change. It is interesting to note that not all articles mentioned adverse consequences of climate change. Many articles simply did not have any mention of what is actually predicted to happen as a result of climate change. A couple of articles even cautiously mentioned some seemingly positive results that may come about due to global climate change.

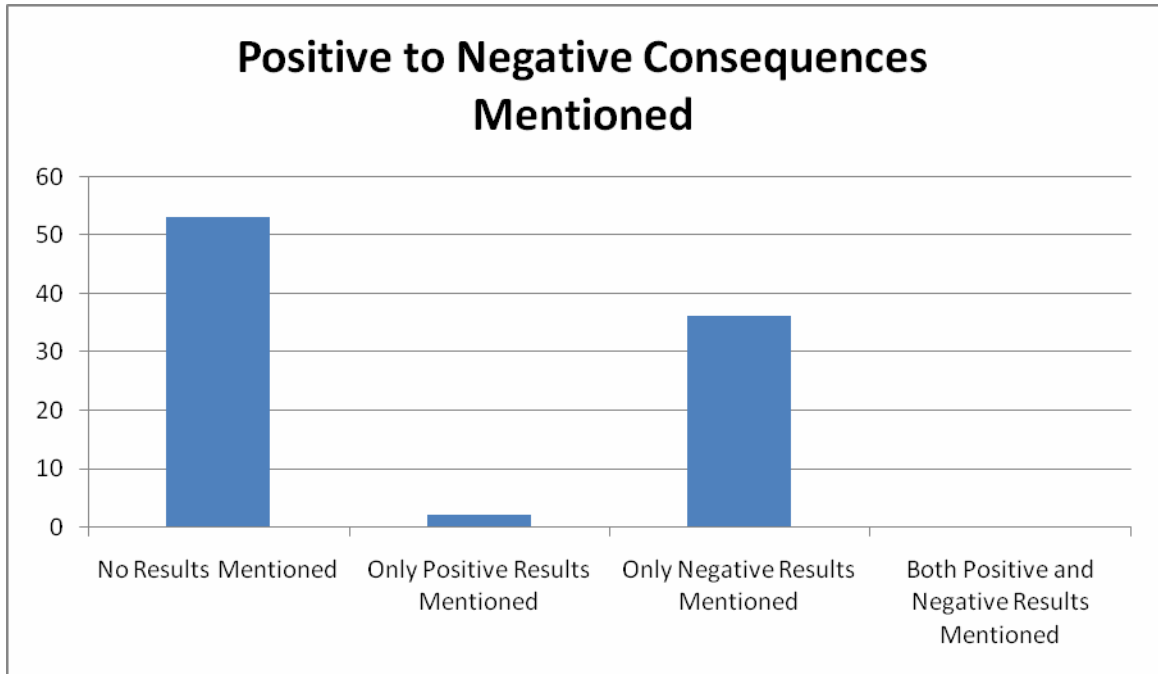


Figure 5.7: Positive to negative consequences mentioned

One article mentioned that the increase in icebergs due to the melting of polar ice caps will result in more “hot spots” for ocean life (Lee, 2007). Another article mentioned that “green” stock prices are likely to rise and consumers are likely to demand more “green” products as results of climate change continue to manifest themselves more frequently to the mainstream population (Mufson, 2007). Even these selectively optimistic results are put forth cautiously in the articles, making it clear that the contributing authors were trying hard to find and accurately portray the silver lining in what they recognized realistically to be a very negative situation.

While some of these articles took a somewhat optimistic stance on climate change, most articles portrayed climate change results in a more doom-and-gloom-oriented light. Some articles opted to offer quite pessimistic predictions uncomfortably

shrouded in dark humor. One article cut straight to the chase, stating climate change related results as including “Droughts. Rising Seas. Overflowing rivers. Mass extinction. Malnutrition. Disease.” (*Washington Post* editorial staff, April 8, 2007).

Like this example, 21 of the 38 articles that mentioned climate change results mentioned two or more climate change results.

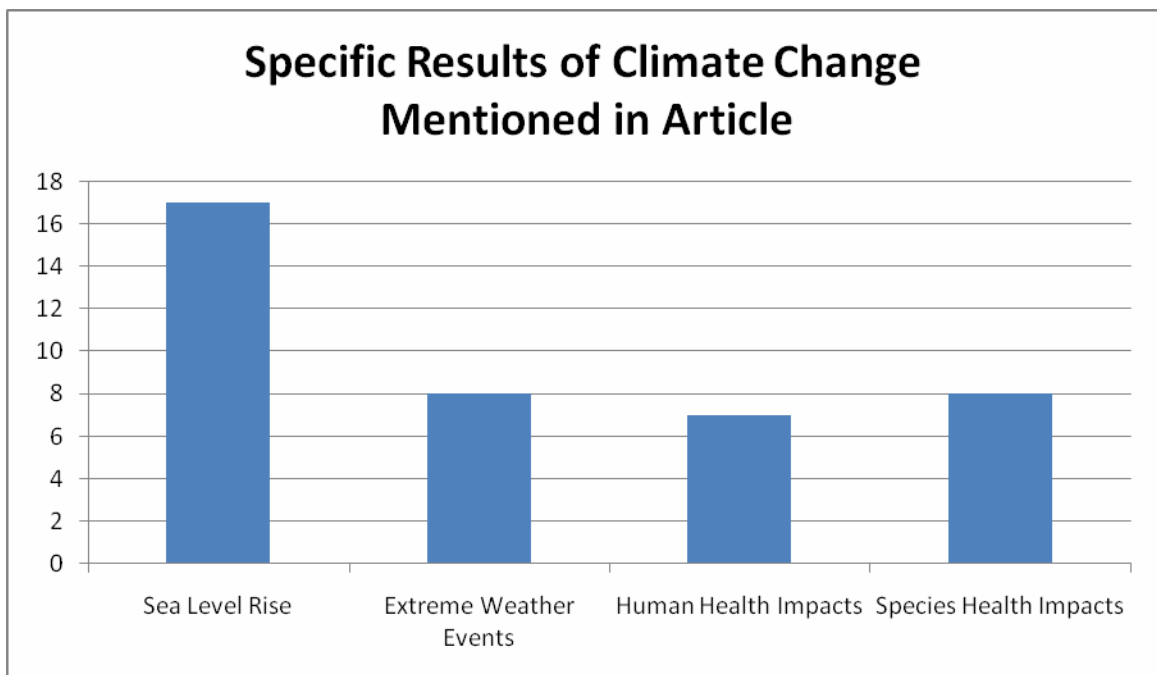


Figure 5.8: Number of articles that mentioned specific consequences of climate change

“Sea level rise” was most often cited as an expected result of climate change, with 17 articles mentioning it. Eight articles mentioned “extreme weather events,” many of which named the recent example of Hurricane Katrina specifically or alluded to it indirectly. Seven articles mentioned human health impacts, mostly in the form of “widespread disease” and/or “famine.” Eight articles mentioned more species-specific

expected climate change results, namely extinction, loss of habitat, and/or decline in species population.

Theme Six: when one stakeholder is mentioned, its peer institutions are also mentioned

Many articles mentioned specific stakeholders, including international organizations, individual businesses and business organizations, governmental organizations, non-governmental organizations, think tanks, environmental organizations, and universities. All told, only nine out of the 91 articles did not mention any specific as stakeholders. The remaining 82 articles mentioned at least one stakeholder in their portrayals of global climate change. Certain stakeholders are specifically mentioned repeatedly throughout the articles. These include the Environmental Protection Agency, the Pew Center on Global Climate Change, the Intergovernmental Panel on Climate Change, and various universities.

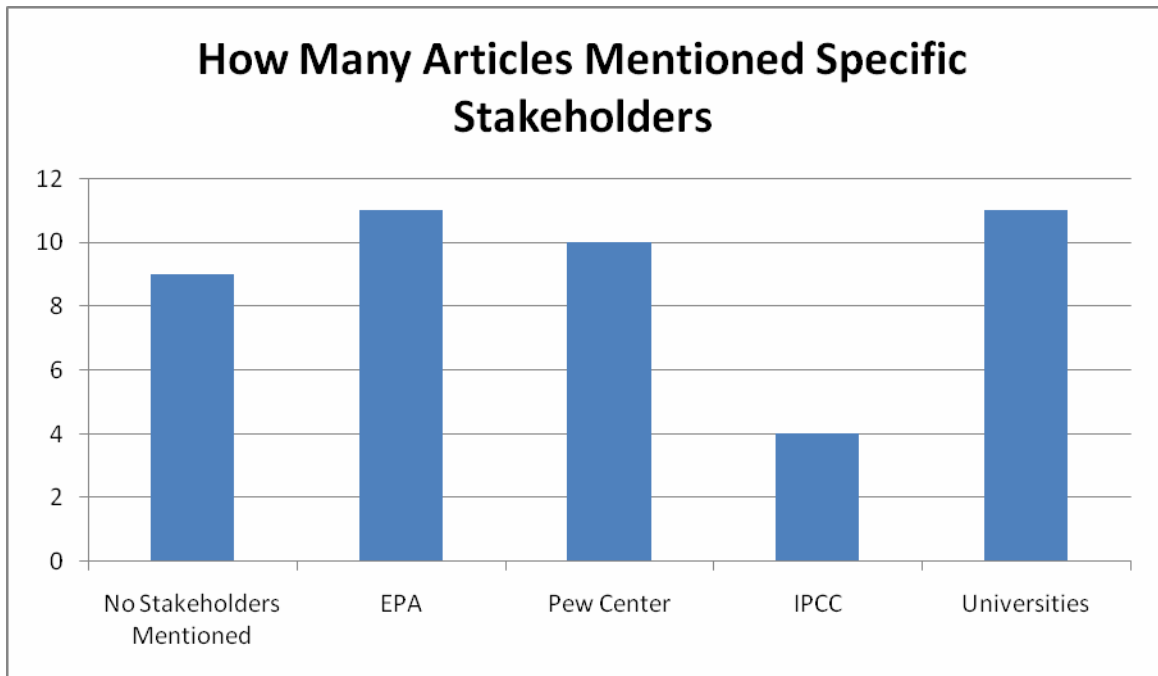


Figure 5.9: How many articles mentioned specific stakeholders

A total of 11 articles mentioned the Environmental Protection Agency specifically by name. There were also 11 articles that mentioned at least one institution of higher education (typically a university) as engaging with the issue of global climate change. Ten articles mentioned the Pew Center on Global Climate Change. Only four articles mentioned the Intergovernmental Panel on Climate Change (IPCC), which is a remarkably low number, especially considering that the latest IPCC report (“Climate Change 2007”) was published in February of 2007 – right in the middle of the yearlong time period on which this data was collected.

Other stakeholders were mentioned repeatedly as well, including Exxon Mobil, Duke Energy, Wal-Mart, General Electric, various airline companies, General Motors, Toyota, American Institute of Architects, Big Think Studies, and the Renewable Fuels

Association. Many environmental organizations were mentioned repeatedly as well, including the Sierra Club, Greenpeace, the Union of Concerned Scientists, and Natural Resources Defense Council, among others.

One of the most notable things about all the articles that mentioned various stakeholders was that they tended overwhelmingly to mention peer or rival stakeholder groups in combination with each other. For example, of the 37 articles that mentioned non-governmental organizations (NGOs) as stakeholders, only three mentioned a single NGO as a climate change related stakeholder. The overwhelming majority (92%) of articles that mentioned one NGO also mentioned at least one of its peer organizations. Most often, these rival NGOs were mentioned in the same sentence.

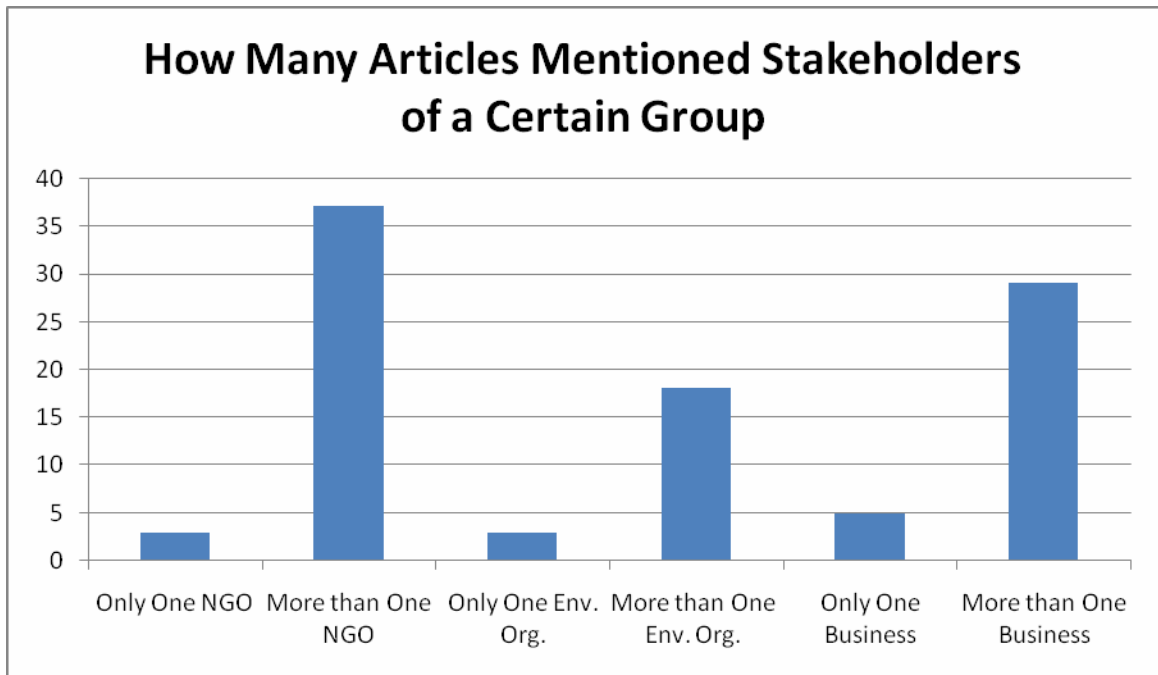


Figure 5.10: How many articles mentioned stakeholders of a certain group

As shown in Figure 5.10, the same pattern holds true for businesses – when one business stakeholder is mentioned, several of its peer and competitor businesses tended to be mentioned as well. For example, of the three articles that mentioned airlines, they all mentioned more than one air-travel company. All six articles that mentioned specific oil and gas companies mentioned more than one of them – most often in a row. Six articles also mentioned several car companies when talking about the automobile industry. One even went so far as to refer to the “Big Three” automakers, literally not naming them separately at all.

The pattern the articles exhibit of naming peer organizations interchangeably can also be seen clearly when the stakeholders examined are environmental organizations. A total of 21 articles mentioned at least one environmental organization specifically by name. Of those 21, only three mentioned one environmental organization in isolation. All the rest, all 18 others, mentioned several environmental organizations alongside each other – Sierra Club mentioned in the same breath as Environmental Defense, Greenpeace mentioned alongside Ecodefense, National Resources Defense Council mentioned in the same sentence as National Environmental Trust. The articles portray any group or organization working for the same industry or cause as interchangeable with any other group or organization working for that industry or cause.

#### Theme Seven: Individuals – particularly politicians – are repeatedly mentioned

The names of several individuals were mentioned repeatedly throughout the articles. When these names were cited it was to illustrate the individual in question both

thinking that global climate change is a problem as well as actively helping to solve global climate change related issues.

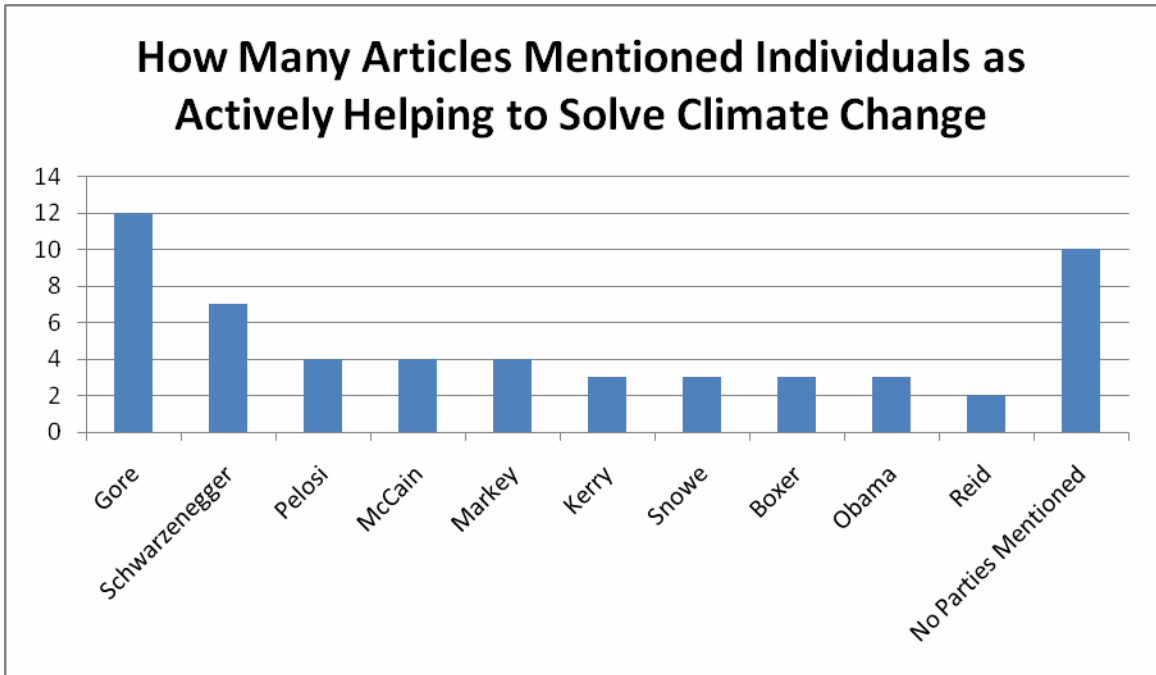


Figure 5.11: How many articles mentioned individuals as actively helping to solve climate change

Seven articles mentioned Republican California Governor Arnold Schwarzenegger as both someone who thinks climate change is an issue and someone who is actively working to help solve issues related to climate change. Four articles mentioned House Speaker Nancy Pelosi as someone who is working to help solve climate change. Four more articles portrayed Republican Arizona Senator John McCain in a similar light, while four more noted that Democratic Massachusetts Representative Edward J. Markey has done his part to help come up with solutions related to global climate change. Three articles apiece mentioned Democratic Massachusetts Senator John Kerry, Republican

Maine Senator Olympia Snowe, Democratic California Senator Barbara Boxer, and Democratic Illinois Senator Barack Obama as individuals who are working to help deal with climate change related issues. Two articles also mentioned Democratic Nevada Senator and Senate Majority Leader Harry Reid as grappling with climate change related issues in solution-oriented ways.

The person most often named as someone who is helping spread word about global climate change, rally support around issues related to climate change, and coming up with climate change related solutions is Al Gore. A total of 12 articles mentioned him by name, four of which specifically mentioned the July 7<sup>th</sup> 2007 Live Earth concerts he helped organize.

Current and former politicians overwhelmingly dominate the media coverage of actors engaged in issues relating to global climate change. Of the political actors mentioned, U.S. state leaders were most often cited as specifically doing good climate change related work. A total of 32 articles mentioned specific U.S. state leadership as having come up with good climate change related solutions, while ten articles mentioned the national-level political leadership of other nations in a similar light. Four articles mentioned the Bush administration as helping to solve climate change, but seven articles mentioned “politicians other than Bush” – explicitly or implicitly – as helping. On the whole, the *Washington Post* was the publication most likely to publish articles that specifically mention the Bush administration’s climate change related stances and policies in a negative light.

Just as many of these articles mentioned individuals and groups actively helping to solve climate change, many articles mentioned the names of individuals and groups

that are actively halting or slowing the process of solving climate change related issues. The coverage of the latter groups and individuals was similarly politician-heavy.

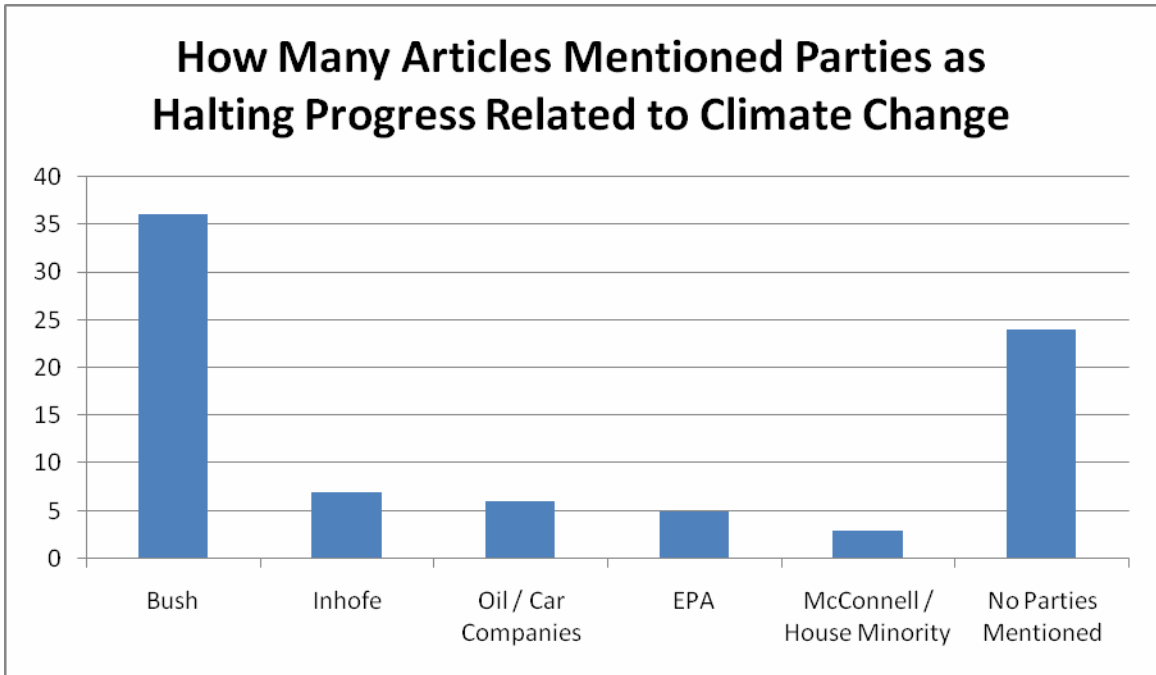


Figure 5.12: How many articles mentioned parties as halting progress related to climate change

Most notably, 36 articles mentioned the Bush administration as actively halting the process of solving climate change related issues. That means that three times as many articles framed the Bush administration’s dealings with climate change negatively as the number of articles that framed Al Gore positively for his productive climate change related work. This could simply be because Bush is president and Gore is not, or it could be because so many people are so disgusted by Bush’s lack of environmental efforts, or it could be because negative news is somehow more compelling to report on and read about.

Seven articles mentioned Republican Oklahoma Senator James Inhofe the ranking minority member of the U.S. Senate Committee Environment and Public Works and one of the most vocal skeptics of global climate change in the Senate, as someone actively halting progress related to climate change. Three articles mentioned the House Minority (153) led by Mitch McConnell, Republican of Kentucky, as halting progress towards solving global climate change. Politicians, while frequently mentioned, are not the only actors portrayed as detracting from progress being made to solve climate change related issues. Six articles mentioned oil or car companies, while five articles mentioned the Environmental Protection Agency (EPA) as a whole, as parties partially responsible for holding back climate change related progress.

#### Theme Eight: Solutions are most often geared towards U.S. politicians

One of the most consistent themes of all the articles was that all but four of them offered some sort of solution relating to global climate change. The vast majority of the articles (50 out of 87) offered policy-specific solutions, mostly in the form of advocating for cap-and-trade carbon emissions control (for coding information, please refer to Appendix Four). Several articles mentioned scientists, researchers, academics, and teachers as being key in coming up with and implementing more climate change related solutions. Eight articles mentioned alternative sources of energy (nuclear, natural gas, and renewable energy sources, as opposed to coal- and oil-based energy sources) as offering promising solutions to global climate change. Four articles specifically advocated for greenhouse gas emissions regulations to fall under the responsibilities assigned to the Environmental Protection Agency. Three articles mentioned the military

as somehow being involved in climate change solutions. Due largely to the Live Earth concerts that happened in the middle of the time when all these articles were being published, four articles mentioned musicians as being involved in global climate change solutions. One article mentioned religious leaders as being central to rallying support around climate change related solutions.

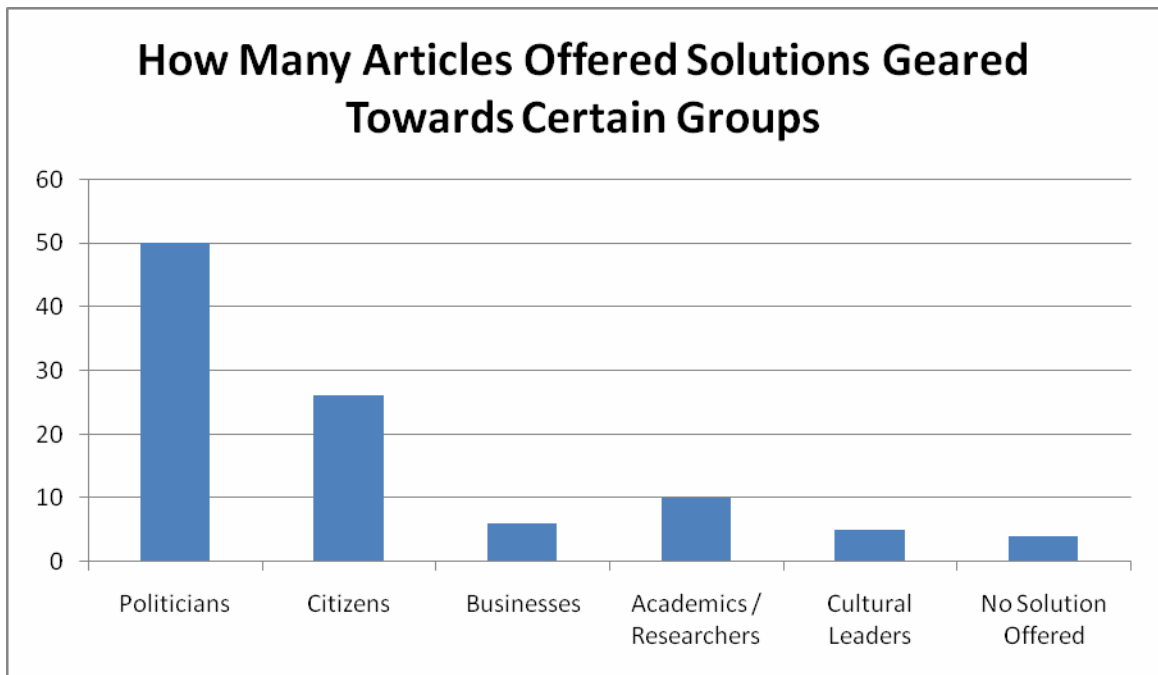


Figure 5.13: How many articles offered solutions geared towards certain groups

Clearly, politicians lead the pack in terms of who the articles portray as holding the key to solving climate change. Of the articles that mentioned politicians, most mentioned specifically or indirectly U.S. politicians – national administrations and agencies, as well as state leaders and representatives. Some articles mentioned international politicians as well, but the majority of political coverage in the articles was

clearly centered on the U.S. government. Six articles contained a call for specific U.S.-wide change, while seven articles acknowledged that given the current federal leadership, state-by-state change would have to occur first before the national government is likely to act. This overwhelming focus on policy-based, politician-backed solutions is directly in keeping with the overall theme of climate change being framed as a political issue in the vast majority of the articles.

#### Theme Nine: Climate change is shown as a complex issue

As illustrated by the many ways in which climate change is portrayed in the various sections of the newspapers, as well as the various stakeholders each article mentions and the many solutions the articles propose, it is clear that the articles tend to grapple with global climate change as a series of complex issues that should be considered from a variety of angles – not as one particular event or one individual story. This observation runs contrary to previous studies that argue that environmental news coverage tends to be about specific events (Wicks, 2001, Hancock, 2003). This disparity could be indicative of a recent change in how environmental news is covered, or, it could simply illustrate the fact that climate change is a somewhat anomalous environmental issue in that the general public’s understanding of it is currently nuanced enough for mass media publications to be able to talk about it in fairly complex ways without having to explain it by using specific events to highlight their main points.

Throughout the articles, the only time in which specific events are mentioned is to illustrate specific things. For example, they are more likely to refer to “Hurricane Katrina” specifically when mentioning that more “extreme weather events” will occur as

a result of climate change than they are to specifically write an entire article about what Hurricane Katrina means as a climate change related event. This illustrates the fact that the articles themselves tend to be framed around broader, more complex political debates and issues, not specific weather events or isolated academic disciplines.

### Conclusion

The primary conclusions that can be drawn from coding and analyzing all the articles include: that climate change coverage is increasing in prevalence as well as in complexity of the way it is covered, that much of the current climate change coverage is very U.S.-based and U.S.-focused, that stakeholders are mentioned often and are generally not differentiated within their umbrella category, and that the same names of responsible parties – most often, politicians – are continually mentioned. Overall, the major frames in which climate change tends to be covered are largely political.

The fact that politics so clearly dominate all aspects of global climate change related print media coverage is at once disheartening and promising. As discussed throughout Chapter Three, the readership of the publications I chose to focus on is composed – at least partially – of members of a somewhat elite leadership class. Given the fact that the publications' readers are generally quite politically-savvy, it makes some sense that the frames used in these articles are largely political. Surely, there are even politicians reading these articles, so their coverage of issues offering solutions geared specifically towards politicians is at least somewhat appropriate and relevant.

That said, however, there are many more people who read these publications who are not high-powered politicians making large scale political decisions than people who

are high-powered politicians making large scale political decisions. Thus, gearing such a large percentage of these articles towards that tiny, albeit existent and powerful, portion of their readership seems like something of a wasted opportunity. After reading these articles, one is left thinking that individuals alone cannot do much in the way of solving climate change related issues. That is a very disheartening (and arguably false) message about climate change with which to come away from these articles.

These publications are clearly trying to play to their strengths. Their readership demographic information sets them apart from their other mass print media outlet counterparts, telling them that their readers are able to effect change on a national political scale. Answering to this, they gear their coverage towards that powerful demographic, trying to harness their unique media powers as best as they can. While it is important for each mass media outlet to play to their unique strengths as much as possible, they must also remember that they are *mass* media outlets, and thus they should cater more to the average person than perhaps these examples are currently doing.

Given the data described and explored in this and previous chapters, I have come up with the following concluding remarks and specific recommendations geared towards environmental organizations about how they can more effectively use the power of the mass media to further the environmental movement. What follows in Chapter Six details those conclusions and recommendations thoroughly.

## **Chapter Six: Conclusions and Recommendations**

### **Introduction**

Global climate change is the most pressing – as well as the most salient – environmental issue of the present time. In many ways, global climate change is *the* flagship issue currently associated with the environmental movement. Environmental organizations have long been the leaders of the environmental movement. As such, their research findings and activist events about global climate change and other environmental issues are often understood to be the representative perspective of the entire environmental community. Throughout history, the mass media has been used as a tool to gain support for issues and further social movements. In many ways, the media has furthered social movements by acting as an educational tool, communicating the facts about the relevant issues and illustrating why those issues are important to a broader audience. People have been studying the social impacts of the media for a long time under disciplines such as media effects research. While there is ongoing debate about the exact extent to which the media impacts peoples' beliefs and actions, it seems both practical and imperative for the environmental movement to hedge its bets and continue trying to utilize the mass media to the greatest extent possible.

Given all of these facts – the pressing nature of global climate change, the fact that environmental organizations are seen as leaders of the environmental movement, and

the fact that mass media coverage can impact how people view and act on issues – it is extremely important that environmental organizations pitch their research results and activist events in ways that are most likely to result in greater and better media coverage. The most effective way for environmental organizations to do this is by pitching their findings in ways that fall easily into categories and frameworks that the media is already used to using to describe the issues at hand. By pitching their findings in this way, mass media outlets will be more likely to cover global climate change more often. With this end goal in mind, I worked with media relations professionals at a variety of environmental organizations, and I analyzed in great detail the print media coverage that global climate change received over the course of one year. In doing so, I have come up with the following recommendations. These recommendations are geared towards environmental organizations and are designed to help them effect greater coverage of environmental issues, specifically global climate change, in the mainstream mass print media.

My recommendations are based on two sources of primary data – interviews and print media articles. First, in order to understand the current media strategies of various environmental organizations, I interviewed several communications professionals from several environmental organizations and asked them questions about their media strategies (see Chapter Four). Every environmental organization interviewed had at least one or two, if not several, professionals specifically dedicated to environmental communications and/or media relations. Conducting these interviews gave me a firsthand feel for both how important environmental organizations view media-related

professionals to be as well as how well environmental organizations' media relations strategies are already doing.

Second, I read all the articles about global climate change printed over the course of one year, carefully coding the content of each article, ultimately revealing the themes that came across throughout all the articles (see Chapter Five). In doing so, I came to understand how the mass print media is used to covering global climate change. By pitching their results in ways that fit into the frames that the mass print media is already used to using, the ways that the mass media find easiest to write in, environmental organizations can effect greater print media coverage of global climate change.

The following recommendations are geared towards environmental organizations. By following these recommendations, and framing global climate change in ways that the media already find to be compelling, environmental organizations can increase the number of articles written and published about global climate change in the mass print media. This increased number of articles is likely to result in more people understanding global climate change, more people caring about global climate change, and more people acting in more environmentally responsible ways. I am gearing these recommendations to environmental organizations in general, but it is important to keep in mind that each environmental organization is unique, with its own special strengths and challenges. I have developed these recommendations as a rough outline that each organization can choose to follow selectively, adapting each recommendation as necessary to more accurately reflect their own values, furthering their own missions, and playing to their own strengths.

### Recommendation One: Environmental organizations should work together more often

When print media articles mentioned one environmental organization, they were likely to mention its peer organizations as well. Very often, print media articles mentioned peer or rival organizations in the same sentence (see Chapter Five). Given that media coverage tends to portray environmental organizations as being somewhat interchangeable, it seems particularly important that the organizations themselves work together more on their media communications strategies. Currently, it seems as though they do not collaborate as much as they could. Again, I would like to stress the point that I am not advocating for the organizations to work together more on their actual research or events. In fact, I believe that the diversity in approach of these various organizations is one of the major strengths of the environmental movement. I am, however, advocating for the different organizations to coordinate their media communications strategies more often and more effectively.

It is particularly striking that in all the interviews I conducted, each media relations professional that tracked media hits related to global climate change specifically and/or environmental issues in general only tracked the media hits that cited their organization by name. There was no collaboration that I could tell of between media relations professionals at each different organization. Given the fact that these media professionals all ostensibly have the same job and are working towards the same end goal, this lack of collaboration – or even simply communication – indicates a missed opportunity.

It is not completely surprising that environmental organizations are not in the habit of working closely together. Each organization has its own unique mission

statement and resulting individual niche, complete with its own challenges and strengths, as explored in Chapter Four. These differences are important to maintain, as diversity in approach is a major strength of the environmental movement, which stems directly from the fact that the environmental movement is led by independent, non-governmental organizations. However, each of these organizations is primarily an environmental organization. As such, while each organization is unique, they are each working towards a similar end goal. Each organization wants more people to understand and care about environmental issues. They each seek to inspire concern and even action in everyday people in hopes of preserving the environment. Given their similar, incredibly important, overall goals, it is imperative that environmental organizations begin to work together more often and develop more cohesion with their respective media communications strategies.

Recommendation Two: Establish personal relationships with a small cadre of climate and media professionals

Since many of the published articles were co-authored by two or more people, and since many authors' names came up in the by-lines of several articles, it would be a fairly simple and certainly worthwhile endeavor for environmental organizations to cultivate individual relationships with certain media practitioners. Specifically, given the large number of articles currently written about global climate change by these particular media practitioners, environmental organizations should try to cultivate relationships with the following individuals. Below are the names of these practitioners, the print media outlet they work for, as well as the ways in which they can be reached.

Juliet Elperin	<i>The Washington Post</i>	Email as available through the <i>Post</i> website, postal service mail, telephone
J. Freedom du Lac	<i>The Washington Post</i>	Email as available through the <i>Post</i> website, postal service mail, telephone
David A. Fehrenthold	<i>The Washington Post</i>	Email as available through the <i>Post</i> website, postal service mail, telephone
Peter Baker	<i>The Washington Post</i>	Email as available through the <i>Post</i> website, postal service mail, telephone
Fareed Zakaria	<i>The Washington Post</i>	Postal service mail, telephone
Kevin Sullivan	<i>The Washington Post</i>	Email as available through the <i>Post</i> website, postal service mail, telephone
Sholnn Freeman	<i>The Washington Post</i>	Email as a available through the <i>Post</i> website, postal service mail, telephone
Christopher Lee	<i>The Washington Post</i>	Email as available through the <i>Post</i> website, postal service mail, telephone
Marc Kaufman	<i>The Washington Post</i>	Email as available through the <i>Post</i> website, postal service mail, telephone

Felicity Barringer	<i>The New York Times</i>	Email as available through the <i>Times</i> website, telephone
Matthew L. Wald	<i>The New York Times</i>	Email as available through the <i>Times</i> website, telephone
Andrew C. Revkin	<i>The New York Times</i>	Email as available through the <i>Times</i> website,

		telephone
Linda Greenhouse	<i>The New York Times</i>	Email as available through the <i>Times</i> website, telephone
Mark Mazzetti	<i>The New York Times</i>	Telephone
Bret Schulte	<i>U.S. News and World Report</i>	Postal service mail, telephone

Figure 6.1: Media practitioners and contact methods

The *Washington Post* writers can be reached by postal service mail at Writer's Name / C/O The Washington Post / 1150 15<sup>th</sup> Street, NW / Washington, DC 20017. They can be reached by phone either at (800) 627-1150 or (202) 334-6000. Those that can be reached by email can be contacted through the *Washington Post* website directly. The *New York Times* writers can be reached by email through the *New York Times* website directly or by telephone at (212) 566-1234. *U.S. News and World Report* writers can be reached at by postal service mail at Writer's Name / 1050 Thomas Jefferson Street, NW / Washington, DC 20007, or by phone at (202) 955-2000.

According to my interview results, each organization's primary media relations strategies included press releases and website management (see Chapter Four). These two outlets are efficient ways to get large amounts of information to media outlets in relatively small amounts of time and space with relatively few resource expenditures. However, these organizations do not have to be utilizing press releases and website management at the expense of other strategies. In fact, they should not be doing so at the expense of other strategies. By developing personal relationships with a select cadre of media practitioners, environmental organizations can be more likely to effectively ensure more frequent and accurate reports on global climate change.

### Recommendation Three: Focus on politics and policy

While conducting this study of the current coverage of global climate change in the mainstream print media, one theme that emerged was that few articles published currently include anything that explains or complicates the basic science behind global climate change. Rather, the media's current coverage of climate change is very policy-heavy. As shown throughout Chapter Five, all aspects of climate change – from who the major players involved are to what the solutions offered are – tend to be written about from a policy-based frame. While most of the solutions offered are policy-related, the coverage of these solutions is fairly superficial. Few articles go into depth about what the policy-related solutions they are advocating for really look like or what would really need to be done in order to make these potential solutions actual, successful realities. Given the fact that climate change coverage tends to be increasingly policy-based, environmental organizations should re-allocate some of their time and energy away from explaining the science behind why global climate change is happening and towards explaining more of the specifics behind the policy solutions they are proposing would help deal with global climate change.

### Recommendation Four: Complexity is an asset

A primary strength of the mass media is that it is able to approach people as whole beings (see Chapter Two). Because the mass media inherently tells stories that have a broad reach and impact to a large variety of people that they connect with in many different ways, environmental organizations should not feel as though they have to

simplify their research results and activist events relating to global climate change. As the article data reveals, media representations of all aspects of global climate change – from what causes it to what can be done about it – are inherently complex. Therefore, if environmental organizations can weave a complex story with their research, they absolutely should. This complex story can include many reasons behind global climate change, many actors dealing with global climate change, and many possible solutions related to global climate change to name a few options. Not only will mass print media outlets be able to handle that complexity, they are actually able to thrive on that sort of coverage, as it plays to their strength of being able to portray issues of importance in ways that appeal to different aspects of a wide variety of people.

In addition to telling a complex story, environmental organizations should not be afraid to highlight the complexity of the characters involved in their presentations about global climate change. Mass media outlets weave stories that are complex in a variety of ways. Most articles portray many possible reasons for why things are the way they are – as well as many possible ways in which that status quo could be altered. In presenting these complex stories, these articles portray complex characters, including some who work for good as well as others who purposefully or inadvertently stand in the way of progress.

Given the goals of mass media outlets to portray news stories in ways that will result in people buying or tuning in to their particular portrayal of the issues at hand, as well as the history of environmental issues being portrayed as events, mass print media outlets are likely to print certain kinds of stories more than others. Based in the results of my data collection, the stories that are more likely to be printed involve a complex cast of

characters and stakeholders involved. Thus, when presenting the results of their research and events with hopes of gaining greater mass print media coverage, environmental organizations should not shy away from the complexities embedded in various aspects of the issue, including the complexities involved with the characters involved in global climate change.

Recommendation Five: Talk about global climate change in nationally-specific ways

Since most print media coverage of global climate change portrayed global climate change as an issue that needs to be dealt with at a national level, environmental organizations should take care to present their findings about global climate change through a national lens. Specifically, the articles tended to be United States-centric, so environmental organizations should be sure to showcase U.S.-specific data and solutions appropriately.

This is not to say, of course, that environmental organizations should completely stay away from the local/regional and international perspectives on global climate change. Those perspectives are certainly important ways to understand and effectively communicate issues involved with global climate change. Environmental organizations should simply recognize that mass print media outlets tend to portray global climate change as a national issue, and they should tailor their research and events accordingly. Specifically, environmental organizations can portray climate change as a national issue by highlighting national-scale illustrations of global climate change as well as what individual and political solutions need to be adopted on the national level in order to remediate some of the effects of global climate change.

### Recommendation Six: Provide and highlight as many solutions as possible

The final, and arguably most important, recommendation I have for environmental organizations to keep in mind as they present their global climate change related research findings and activist events to a mass print media audience is to be sure that they provide many solutions. Otherwise, they risk falling into the trap that environmental reporting continually fell into a decade and more ago, when environmental events were reported on as singular, isolated events that could not be predicted or avoided.

As the article content analysis shows, mass print media outlets are currently in the habit of portraying most global climate change related solutions in policy-specific ways. Thus, it would be helpful if environmental organizations were more specific about the types of policies they believe would help when it comes to global climate change. That way, media outlets can provide the policy solutions they want to present their audiences without having to come up with them themselves and risk getting them wrong. Environmental organizations should not be afraid to go into great detail about the policy solutions they are advocating for, explaining thoroughly what makes them good policy solutions – as well as why they believe that policy solutions are a good idea in the first place. They should explain these policy solutions in ways that are geared towards politicians as well as voters.

In addition to these policy solutions geared towards politicians and voters, environmental organizations should offer and highlight more solutions that are geared more towards everyday laypeople that do not have the power to effect change on a large,

political scale. One of the major themes throughout these articles was that they most often offered solutions geared towards politicians and other elite leaders and they were much less likely to offer solutions geared toward non-political laypeople. While this target audience is not completely inappropriate given the audience demographics of these particular publications, it is also unfortunately missing the much larger audience that could be involved if the recommendations were geared towards a more broad general audience. If environmental organizations portrayed more specific solutions – ones that politicians, as well as everyone else, could work to achieve – mass media outlets would be more likely to mention specific solutions that are aimed towards a broader audience. These solutions would be more likely to effect greater actual action on the part of the readership of these articles, as they would be more relevant and applicable to larger proportions of people.

### Concluding Remarks and Future Directions

I started this project thinking that environmental organizations were all but completely missing out on the powerful opportunity of using the mass media as an educational tool. As I conducted my interviews with a variety of media relations professionals at a variety of environmental organizations, I soon realized the erroneous nature of my original assumption. In fact, all of the environmental organizations I was able to be in contact with are already actively trying to more effectively tap into and harness the power of the mass media. This is perhaps best illustrated through the simple fact that they all employ full-time media relations professionals. This is hugely uplifting, as I believe that the mass media is a tool that can – and should be – used for social good.

Building from the solid starting point of having professionals dedicated to the cause, there are some ways in which these organizations can focus their efforts slightly differently and effect even greater mass media coverage of global climate change. As previous literature suggests, this better coverage can be expected to result – at least marginally – in more people understanding and caring about global climate change and more people acting in environmentally responsible ways. The preceding recommendations are designed to help them do just that. Hopefully, environmental organizations will find them to be useful and appropriate.

I would like to reiterate, in this last portion of this thesis, that while I chose to focus on global climate change and print media for the scope of this study, this research strategy can be adapted to be applicable to other environmental issues as well as other mass media outlets. I chose to focus on global climate change because it is the premier environmental issue of the time, and I opted to follow print media coverage because previous similar studies did so and it was important for me to follow precedent. However, the choices I made in experiment design are only one option in a myriad of options. For example, there is ample room for future studies to explore how the print media covers other environmental issues, related to climate change and otherwise (water quality issues, sea level rise, species extinction, etc). There is also ample room for future studies to explore how climate change is covered in other mass media outlets, not just the mass print media outlets I examined in this study.

There are many other future studies that can follow my general experimental design but result in completely new findings. For example, this study leaves room for future research to focus how print media outlets' coverage of climate change continues to

evolve over time. Another interesting spin-off study would be to duplicate my exact methods, but with different publications – for example, focusing on *U.S.A. Today* instead of the *New York Times* and *Washington Post*. In a similar vein, it would be interesting to see how print media outlets cover environmental issues using more colloquial wording than the “global climate change” or “global warming” phrasing that I chose to use. Over the past couple of years, it seems as though more and more publications are printing “how to green your life” articles and side-bar features. It would be extremely interesting to see how print media outlets – even the exact same ones that I studied here in this research – phrase environmental issues when they are clearly being portrayed in a more informal and light-hearted way.

One future direction I think to be particularly interesting involves a study like mine, conducted with several years’ worth of data, focusing more on differences in the nuances of proposed solutions. I expect that as time goes on, the trend away from proving the problem of climate change towards coming up with more solutions regarding climate change will only increase. If that is the case, a future version of this study would involve more specific coding on the types of solutions advocated for in these articles, who exactly those are geared towards, and what end results are proposed will happen if those solutions are adopted.

I also think it would be particularly interesting, given the current, rapidly-growing internet culture, to do a study similar to this one that focuses entirely on new media outlets, like blogs and other online mediums. New media and digital media are particularly interesting topics for several reasons. For one, they are relatively new mediums, and thus have not been researched as extensively as print media outlets and

other more established mediums. Thus, there are ample opportunities for new research focusing on digital and new media outlets to be conducted and published. Also, unlike print media and other more conventional mass mediums, there are no intermediaries with digital media. With digital mediums, there are no editors deciding what gets published and what does not. Through digital and online mediums, any individual has direct access to the masses. While this fact makes digital mediums more difficult to fact check and reference in an academic setting, it also makes them much more accessible and arguably therefore gives them a different kind of power over the masses. There is ample room for future studies to explore both how these digital and new mediums explore climate change and other environmental issues as well as what the perceived effect of this type of media message is on its audience.

While this study has yielded several definitive themes and resulted in what are hopefully useful results and practical recommendations, there are plenty of opportunities for future studies to continue, complement, and complicate these findings. I am excited to see the directions and trends that media effects research exhibit in the future as well as the ways in which the environmental movement is able to benefit from a greater understanding of and aggressive utilization of the mass media outlets.

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### **Appendix One: Interviewees and Media Contacts**

NB: Contacts with asterisks next to their names are those that I was able to interview most extensively.

Jon Barrows\* – Sierra Club – [jon@ssc.org](mailto:jon@ssc.org) – Sierra Student Coalition Trainings Director  
(NH)

Eliza Simon – Sierra Club

Michael Crawford – Sierra Club

L. Knouse – the Society of Environmental Journalists

Jon Coifman – NRDC

Jennifer Powers – NRDC

Eric Young – NRDC

Natural Resources Defense Council Action – NRDC

Michael Crawford – Energy Action Coalition

Erika Vlitiz – WWF

Michael Ross – WWF

Brian Thomson – WWF

Lee Poston – WWF

Kerry Zobor – WWF

Tom Lalley – WWF

World Wildlife Fund Media Relations office – WWF

Jennifer Pizza – Greenpeace

Daniel Kessler\* – Greenpeace - [daniel.kessler@sfo.greenpeace.org](mailto:daniel.kessler@sfo.greenpeace.org) – Greenpeace Media  
Officer (CA)

Greenpeace General Information – Greenpeace - [info@wdc.greenpeace.org](mailto:info@wdc.greenpeace.org)

Sally Montgomery – Audubon - [smontgomery@audubon.org](mailto:smontgomery@audubon.org)

Erica Barton – Audubon

Audubon Education – Audubon - [education@audubon.org](mailto:education@audubon.org)

Audubon Magazine – Audubon - [editor@audubon.org](mailto:editor@audubon.org)

Christine Dorsey – National Wildlife Federation – [Dorsey@nwf.org](mailto:Dorsey@nwf.org) - Communications Manager (Montpelier, VT)

Aislinn Maestas – National Wildlife Federation – [maestas@nwf.org](mailto:maestas@nwf.org) - Communications Associate (Washington, DC)

Lisa Swann\* – National Wildlife Federation – [swann@nwf.org](mailto:swann@nwf.org) - Communications Manager (Reston, VA)

Alieo Weinmanna – National Wildlife Federation – [weinmanna@nwf.org](mailto:weinmanna@nwf.org) – Communications Manager (Washington, DC)

Nate Kommers\* – World Resources Initiative – [nkommers@wri.org](mailto:nkommers@wri.org) - Media Officer – (Washington, DC)

Paul Mackie\* – World Resources Initiative – [pmackie@wri.org](mailto:pmackie@wri.org) - Senior Media Officer / Director of Media Relations (Washington, DC)

Tony Kreindler – Environmental Defense – [tkreindler@environmentaldefense.org](mailto:tkreindler@environmentaldefense.org) – Climate Media Contact person

Diane Slaine-Siegel – Environmental Defense – [dslaine@environmentaldefense.org](mailto:dslaine@environmentaldefense.org) – New York Regional Communications person

Membership Office – Environmental Defense - [members@environmentaldefense.org](mailto:members@environmentaldefense.org)

Media Office – Environmental Defense

General Information – Union of Concerned Scientists

Radha Chitale – ABC News correspondent – [radha.chitale@gmail.com](mailto:radha.chitale@gmail.com)

## **Appendix Two: Questions Asked of Interviewees**

In the first set of these correspondences, during the spring of 2007, I asked the interviewees the following questions.

- 1) Does your organization already keep any sort of running media inventory on what media outlets are covering global climate change?
- 2) Would such a thing be useful for your organization to have?
- 3) What sort of information would your organization like to have from a media analysis study?
- 4) In your experience, what major media outlets have been particularly useful for your organization or particularly open to the idea of working with environmental groups?
- 5) Does your organization actively seek media attention? If so, how?
- 6) Does your organization already keep any sort of running media inventory on what print outlets are covering global climate change and how?
- 7) Are there any other environmental communications contacts within your organization or others that you think might be helpful for me to talk with?

The questions I asked during the second round of interviews (conducted in the fall of 2007) are as follows.

- 1) Does your organization actively seek mass media attention/coverage? Why or why not?
- 2) How does your organization seek media attention?
- 3) How successful does your organization believe it is in acquiring this media attention?
- 4) How does your organization inform this belief?
- 5) In terms of your media strategy, what are your organization's unknowns?
- 6) In your experience, what major print media outlets or individual media practitioners have been particularly useful and helpful to your organization / willing to work with environmental organizations in ways that portray them in a positive light?
- 7) Is there anything else about environmental communications you think I might be interested to know about?
- 8) Do you know of anyone else, either from within your organization or not, who might find my work useful or who I might be interested in contacting?

### **Appendix Three: Specific LexisNexis Methods**

To find the newspaper articles I used: In LexisNexis Academic, go to “Sources,” then “Find Sources.” In “Find Sources” select both “The Washington Post” or “The New York Times,” and then click “OK: Continue.” Then, under “Enter Search Terms,” type “global climate change” or “global warming” (with “natural language” option selected). Finally, under “Specify Date,” select “date is between” and enter dates required (September 1 2006 through August 31 2007). Then hit search and read all the articles that come up.

To find the magazine articles I used: In LexisNexis Academic, go to “Sources,” then “Find Sources.” In “Find Sources,” select “The Economist” and “Newsweek” and “US News and World Report,” and then click “OK: Continue.” Then, under “Enter Search Terms,” type “global climate change” or “global warming” (with “natural language” option selected). Finally, under “Specify Date,” select “date is between” and enter dates required (September 1 2006 through August 31 2007). Then hit search and read all the articles that come up.

The methods I used to find the number of articles published relating to global climate change per year are the same LexisNexis-based methods I used to find each

article I read in depth for the year of September 1<sup>st</sup> 2006 through August 31<sup>st</sup> 2007. It is important to note that in this Figure 5.1, “Number of Climate Change-Related Articles Published by Year,” I cite 103 articles as having been published using the terms “global climate change” and/or “global warming” between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007, the time period which the rest of this research primarily focuses on. However, throughout the rest of Chapter Five (and indeed, this thesis as a whole), I refer to 91 articles as having been published using the terms “global climate change” and/or “global warming” during this same time period. This disparity is due to the fact that several articles came up more than once when I simply searched for the keywords “global climate change” and/or “global warming” in the articles between given dates. The same article would show up more than once when it appeared in different versions of the same publication. For example, when an article was printed in both the early and the late editions of the same daily newspaper, that article showed up in the search two times, despite the fact that each time it showed up, it was the exact same article.

When I was reading these articles in detail, as I was for the year between September 1<sup>st</sup> 2006 and August 31<sup>st</sup> 2007, I was able to read each article once and only count the data from that article one time. However, when I was simply searching for the number of articles written in a given year, as I did to acquire the data for Figure 5.1, I did not search through and differentiate between articles that were actually different and articles that were simply duplicates of themselves. In order to make the data shown on this graph consistent within itself, I chose to use the “103,” duplicates-included number instead of the “91” non-duplicate article number I use throughout the rest of this thesis. The rest of the data and graphs in Chapter Five focus solely on the September 1<sup>st</sup> 2006 to

August 31<sup>st</sup> 2007 timeframe, and thus the numerical total for these articles published is consistently 91.

#### **Appendix Four: Printed Articles Coding Manual**

The following appendix is meant to be a methods guide to help readers understand how I coded the articles to result in the conclusions I report on in Chapter Five.

Before I began reading the articles, I set up two Excel spreadsheets, in which I recorded all my coding observations. The first spreadsheet contained information about the basic facts of each article. This spreadsheet contained data that included the title of each article, the author of each article, the date each article appeared, which publication the article appeared in, the section and page number of the publication that the article appeared in, the length of the article (in words) whether or not there were graphics included in the article (and if there were, what type of graphics they were – photos, maps, etc), whether or not the article was an editorial or an opinion piece, and whether or not climate change was the main focus of the article. The coding for this spreadsheet is very straightforward, as the information contained in it required no analysis.

The second spreadsheet was where I recorded more detailed analytical observations of the articles I was reading. This spreadsheet contained data including what the geographic focus of each article was, what the overall frame of each article was

(was it written from a scientific perspective, a policy perspective, etc), what results of climate change were mentioned in the article, who was portrayed as thinking climate change is a serious problem, who and what were portrayed as parties or practices responsible for climate change, who was portrayed as actively helping to solve climate change related issues, who was portrayed as halting the process of solving climate change related issues, what groups or stakeholders were mentioned, what solutions were offered, and who those solutions offered were oriented towards. As the coding for this spreadsheet is considerably less straightforward, I hope that this appendix will answer any questions regarding the choices I made when coding the contents of each individual article. Once I coded each article in these ways, I looked for the themes that came through across a majority of articles. I then analyzed those themes and patterns more fully, resulting in the bulk of Chapter Five.

- **Geographic Focus:** The first piece of information I took note of in each article that required a bit of a judgment call on my part was the “geographic focus” data. For this data, if the article was primarily about a specific region or state (like New York’s Hudson Valley, for example, or Maryland), the geographic focus of the article got coded as “Regional – Hudson Valley, NY,” or “State – Maryland” as appropriate. Washington, D.C.-centered articles got coded as Regional / State. Similarly, if the focus of the article was primarily about one nation (say, the U.S. or Greenland), that got coded as “National – U.S.” or “National – Greenland” as appropriate. Articles that mentioned climate change as an issue that was being dealt with by many nations got coded as “International,” followed by a list of

specific nations, if specific nations were indeed mentioned in the article. For example, an article that mentioned a need for international laws regarding climate change but did not mention specific nations would be coded simply as “International,” whereas articles that mentioned specific nations would be coded with the specific names of the relevant nations (for example, “International – U.S., Thailand, France, Spain”).

- **Overall Frame:** I decided on the overall frame of each article by simplifying the article into a one-sentence synopsis (for example, “though climate change policy is resting, it is not dead”), and then decided what overall frame that synopsis most fit in to (in this case, policy).
- **Results:** For the results of climate change mentioned, I simply wrote down any specific events the articles mentioned as being possible results of climate change.
- **Stakeholders:** Similarly, for the groups/stakeholders mentioned data, I simply took note of whichever groups or stakeholders were mentioned in each article.
- **Part of Problem / Part of Solution:** When taking note of who is portrayed as thinking climate change is a problem, as well as who is portrayed as actively doing something about climate change, and who is standing in the way of productive climate change related work, I simply took note of what politicians, celebrities, organizations, and other proper nouns were mentioned and what the article seemed to associate them with in terms of climate change.
- **Causes:** With coding the parties/practices responsible for climate change data, I took note of what each article was identifying as the root cause of climate change

– be that something vague like “greenhouse gas emissions” or “carbon emissions” or something specific like “TXU Corp.”

- **Solutions:** Finally, for each article, I took note of what climate change related solutions each article offered or mentioned, again condensing the solutions-oriented gist of each article to a single, essential sentence or phrase (“EPA needs to regulate greenhouse gas emissions” or “make MD follow ‘clean car’ rules, hope other states follow suit”). Then, to code the accompanying who solutions offered are oriented towards data, I took note of who those summative sentences were aimed at, and those parties became the results of who the solutions offered are oriented towards (in this case, “the EPA” or “U.S. state politicians and voters” respectively).

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