Dissertation

Title Environmental risk and the media: A study into the impact the media has on the public's perception and understanding of climate change and the associated risks

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Environmental risk and the media: A study into the impact the media has on the public's perception and understanding of climate change and the associated risks

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Declaration

I declare that the full body of this work is my own. All sources are cited and referenced and the work does not exceed the word limit.

Signed

Sarah Hembrow

Abstract

Climate change is one of the most complex issues of the century and public awareness has been found to be inconsistent and extremely media dependent. Struggles have often been found with communication and the media have been known to cause public uncertainty about the reality of anthropogenic climate change and the affects it may have both locally and globally. Misrepresentations of scientific evidence have caused the public to view the media as being unreliable. This study, using two popular forms of methodology covered all areas of the media, comparing information and assessing its public impact. A range of media was analysed and issues were found amongst all areas. Results found the media to cause misconceptions concerning the reality of climate change, increasing public levels of scepticism. This scepticism was then further encouraged due to a large amount of conflictions across all sources analysed, overall diminishing any want to become involved in combating climate change.

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Chapter 1 – Introduction

This investigation will analyse the perception of the public with regards to their understanding of climate change and the associated risks and consequences. Chapter one will give an introduction into the investigation and will outline the aims and objectives. Chapter two will be a review of literature studied and will introduce similar studies previously completed. Public survey questionnaires and a focus group form the triangulated methodology outlined in Chapter three. Chapters four and five will present and analyse the results from the public survey questionnaires and the focus group. Chapter six will discuss these results with reference to the study objectives and Chapter seven will conclude the study.

1.1 Introduction and background

Climate change is a natural phenomenon which has provoked a large amount of scientific theories and has influenced a number of investigations which can be traced back to the eighteenth century (Boykoff and Rajan, 2007). Theories behind this changing climate suggest anthropogenic causes particularly the increase of gas emissions since the industrial revolution.

Climate change is said to be the biggest environmental risk of all time and is a great threat to life on Earth in the twenty first century (Smith and Joffe, 2009; Wilson, 2000). It has the potential to generate worldwide disasters, creating every kind of problem the human race could potentially encounter.

"It could alter life as we know it in many arcane and unpredictable ways"

- Wilson (2000) 201

Today, there is an amplified level of concern towards the human impact on the speed the climate is changing. It is common knowledge that the Earth's climate naturally fluctuates

over time but it is thought that human influences are causing the climate to change faster than is natural.

The relationship between scientific and public knowledge is very varied and complex. Terminologies such as climate change and global warming, which are popular amongst the press, are known to cause large amounts of confusion when used incorrectly, which has been repeatedly identified.

The investigation will centre on the media attention climate change receives and the way in which it is perceived by the public based on this coverage using a mixture of qualitative and quantitative methodologies.

1.2 Rationale

Although many studies can be identified surrounding the topic of public perceptions of climate change, no studies have been found to compare different media sources. Climate change is a topic sensationalised by the media and understanding how this impacts the public is important in being able to combat the issue.

1.3 Aims and Objectives

The aim of the investigation is to analyse the quantity of knowledge the public have about climate change and the associated risks and consequences. It will aim to gain an insight into how climate change is perceived due to the media portrayal, into where this information comes from and how reliable the public perceive the media to be.

Within in aims of the study five objectives will be addressed:

- To gain an insight into the public's knowledge of climate change and where this information comes from.
- To compare different genres of public information and analyse their likeness to each other.
- To explore the public confusion different media sources may cause.

- To understand the public's opinion on the reliability of information presented by the media.
- To assess the possible influence well known figures may have on public opinion and understanding of climate change and how this may influence media coverage.

Chapter 2 – Literature Review

Chapter two will examine a variety of literature which will be discussed in relation to the aim of the investigation. Previous investigations will also be drawn upon, which were similarly based on public perceptions. Firstly, there will be an introduction to the science of climate change and global warming, explaining a brief background and looking at the potential consequences. The chapter will then move onto how climate change is portrayed by the media, the sense of risk created and the impact had on the public's perception and understanding.

2.1 Climate Change and Global Warming

Climate change is possibly the most serious risk the environment has had to cope with (Boyce and Lewis, 2009; Smith & Joffe, 2009; Wlson, 2000) and much of the science points to anthropogenic causes. This has resulted from mass strain being put on the environment by human activities such as burning fossil fuels and deforestation, to name just a few (Carvalho, 2005; Boykoff, 2009).

From the beginning of the 1990s there has been much debate among scientists as to the human role within the fast-changing climate (Anderson, 2009). As found by Antilla (2005) the media frequently draw on past scientific uncertainties regarding climate change, which are often collected from unreliable sources. Now there is a general scientific consensus that human induced climate change is occurring with potentially life threatening consequences (Malka *et al*. 2009; Boykoff, 2009; Wilson, 2000).

Global warming is a term widely used to describe the potential increase in the Earth's surface temperature. Changes in this temperature are estimated to increase by up to 4˚C (Drake, 2000).

The way the climate rises and falls is a natural phenomenon (Smith & Joffe, 2009) that has been studied since records began. Evidence suggests previous differences in the

temperature of the Earth to that currently experienced (Cowie, 1998) and present problems relate not to this change but to the speed this change is predicted to occur (Smith, 2007).

Records have shown that over the last few decades the Earth's temperature has been significantly higher than in recent years, particularly during the 1980s and early 1990s (Houghton, 1994), again suggesting anthropogenic causes.

Many scientists agree that our increase in fossil fuel usage is partly derived from the industrial process of the 1700s. Industrialism, which has spread globally since the late eighteenth century, has caused an increase in the amount of carbon dioxide and other gasses being released into the atmosphere (Drake, 2000).

These gasses, also known as greenhouse gasses, are an important part of the Earth's atmosphere and are the reason for life on Earth today. The absorption of radiation increases atmospheric temperatures thus maintaining suitable temperatures for biological processes, preventing damage to the Earth (Reynolds**,** 2006). This "natural geophysical process" is known as the greenhouse effect and has been a part of the Earth's history for millions of years (Mintzer and Leonard, 1994).

During the last 10,000 years the concentration of these gasses has been relatively constant. However in the last two centuries, there has been an increase in the release of different gasses, causing the concentration to be increased. This has caused disruptions to the natural balance, increasing global temperatures at a much more advanced rate than is natural (Mintzer and Leonard, 1994), with catastrophic consequences.

2.2 Climate change consequences and risks

Climate change is seen as being an unobtrusive issue, not visible to society and so the way it is framed by the media shapes the public's understanding (Boyce and Lewis, 2009), ultimately impacting the way problems are managed by society.

It has been found that many people are unaware of the risks they will potentially face due to climate change (Boyce and Lewis, 2009). Their preparedness is only focussed on the near future, not looking any further ahead than a few years (Mileti, 1999).

Research has found one of the foremost consequences of climate change is an increase in natural disasters. The quantity of hurricanes, typhoons and floods is predicted to increase (Drake, 2000; Downing *et al.* 1999). Already recent flooding events have been questioned, suggesting links to global warming. Low lying countries including Thailand, Bangladesh and Indonesia are particularly vulnerable (Drake, 2000) due to extremely low lying land their geographical positions. They are highly susceptible to large amounts of damage particularly from flooding and rising sea levels.

The media play an important role in the public's construction of risk and it has been found that the public fear the unknown and what is most catastrophic (Boyce and Lewis, 2009). Many of these "invisible" risks are only brought to the public's attention by the media (Corbett and Durfee, 2004), despite their potential to affect everyone and everything on Earth.

Both negative and positive effects may be felt; temperature increases may cause higher mortality from coronary diseases however may also prevent deaths induced by low temperatures. Crop yields are predicted to fall and there is also the potential for a loss of biodiversity, due to risk of species extinction (Drake, 2000). Migratory patterns of insects may be affected, potentially increasing the geographical distribution of diseases such as malaria, putting more people at risk (Martens *et al.* 1999). Effects will also be felt in water systems, increasing the temperature of oceans. Coral reefs and many other aquatic species may become under threat due to the way they are biologically adapted to their environment.

For a large proportion of the Earth's people these risks are not a part of daily life, so are not seen as a vast threat (Boyce and Lewis, 2009). Although Europe may be somewhat affected by flooding events (Drake, 2000) these risks are a bigger threat to other countries, particularly those without sufficient resources. Due to a lack of understanding many go unnoticed by the public.

With the Earth's population continuously rising, the amount of people at risk from consequences of climate change also increases, thus increasing the public's fear of these risks (Boyce and Lewis, 2009).

2.3 How climate change is portrayed by the media

Over the years, the media has demonstrated the large role it has played in shaping public perception and understanding. It was not until the late 1980s when there began a real increase in the interest of climate change, particularly from the media (Anderson, 2009) and scientists who began studying public understanding (Bord *et al*. 1998).

Information in the media is framed into sellable stories which will gain the attention of the public. Framing is frequently linked to specific press stories and reports are often linked to important events, rather than individual stories about climate change. Events are often personalised and seek to blame individuals, rather than looking at underlying causes. Problems arise due to:

> *"...the framing of the climate story in terms of debate and controversy can be seen as intimately bound up with the need to create dramatic attention-grabbing story lines driven by both journalistic and economic norms."*
>
> - Boyce and Lewis (2009) 45

Until 1988 there was very little press coverage on climate change and any references had a strict scientific focus (Carvalho, 2005; Boykoff and Goodman, 2009). In September 1988 a milestone was reached when Margaret Thatcher made a dramatic speech to the Royal Society. Thatcher attempted to create a sense of risk, by bringing attention to the potential consequences of climate change, transforming them into a political issue. This prompted a large number of media reports on climate change, bringing science, rather than propaganda into the public eye (Carvalho, 2005).

Thatcher aimed to globalise climate change by relocating the responsibility which was previously solely based on economically developed countries. Developing countries were also made accountable, where problems such as deforestation, also have their impacts (Carvalho, 2005).

Climate change is broadcasted through a variety of different media, including documentaries, newspaper reports and motion pictures. Motion pictures especially, have been found to have a large impact on public awareness (Lowe *et al*. 2006; Leizerowitz, 2004) introducing climate change to Hollywood. These different sources impact their audience in different ways, largely depending on entertainment value.

Downs' (1972) "issue-attention cycle" has been explored by many scholars as a method of monitoring the rise and fall in public interest in climate change. It is suggested that any issue is likely to fade from media interest if its entertainment value is tapered.

With this in mind, it can be said that level of public response can be directly linked to the method used to present information. The public interest is more likely to rise if information is presented using well known figures or is dramatised similar to the way the science is depicted by motion pictures.

Boykoff and Goodman (2009) speak of the "celebritization" of climate change through the media:

> *"...there is a long history of celebrities shaping discursive and material considerations in the public space"*
>
> - Boykoff and Goodman (2009) 396

Celebrities from all genres including singers, actors, politicians and artists, are viewed as being environmental ambassadors, bringing world issues into the public light and popularising problems such as climate change. This has the potential to increase public awareness, providing education about how differences can be made (Boykoff and Goodman, 2009).

2.4 Media miscommunication

Worldwide, media miscommunication is a problem in desperate need of a cure. Studies conducted all over the world (Bell, 2004; Leiserowitz, 2004; Boykoff and Rajan, 2007) have encountered similar results with problems with media miscommunications.

The main issue can be identified within scientific translations. On many occasions climate change is reported alongside political events (Allan & Thorson, 2009; Boyce and Lewis, 2009), which attracts large amounts of interest. Explanations are often confused by:

> *"...a lack of training among journalists and a lack of time to investigate a story and its background can therefore act detrimentally to the translation of science into information"*
>
> - Bofkoff and Rajan (2007) 209

There is a "gap" between the science behind stories and the media representation of this science (Russil and Ayssa, 2009). There are uncertainties concerning the reality of anthropogenic climate change which exist among scientists. These are broadcasted by the media and are responsible for bringing about public confusion (Hulme, 2007).

The story of global warming is said to be:

> *"...one of the most complicated stories of our time"*
>
> - Wilson (2000) 206

This is then complicated further by journalistic constraints with deadlines, limited sources and the knowledge of the reporter (Wilson, 2000).

Bell (1994) writes about the problem of miscommunication in New Zealand. It was found that 80% of media reports concerning the subject were inaccurate and one in six contained "significant misreporting".

It could be said that this is out of date and irrelevant to modern concerns. However looking at more recent writings such as Boyce and Lewis (2009), it is shown that this issue has not significantly improved over time.

Misrepresentations of climate change have been particularly noticed in motion pictures and studies (Lowe *et al*. 2006; Leiserowitz, 2004) have been undertaken to assess the impact had on the audience's perception and understanding.

The film *The Day After Tomorrow* fuelled many debates about the scientific accuracy behind its contents. Complaints were launched from climatologists and other scientists, who commented on the impossibility of many of the scenes (Leiserowitz, 2004). The film severely exaggerated the effects of climate change and shortened the time scale to a matter of weeks, portraying unrealistic scenarios.

Leiserowitz (2004) conducted a study which involved the response of the American public, recording contrasts in the risk perceptions of people who had both viewed and not viewed the film. A higher risk perception was held by those who had seen the film in comparison to those who had not. Before and after questions revealed that nearly half of the respondents stated the film increased their concerns about climate change. It was also found that respondents became more involved with personal, social and political efforts to combat the issue.

Hulme (2009) states that the film writers acknowledged the exaggerations however agreed it would catch the attention of the public and bring light to the issue. It was hoped that the public might take a note of the consequences and become more aware.

Other similar issues were found with Al Gore's documentary, *An Inconvenient Truth*, which came under much scrutiny after it was found to contain scientific exaggerations. Although said to be "broadly accurate" it was found to contain nine errors. The documentary was released in 2006 and received an Oscar in 2007 for Best Documentary. It was later passed by the High Court to be distributed into UK secondary schools as an educational aid (Mellor, 2009).

This problem with misrepresentation is also found in academia. In 2004 a study published in the journal *Nature* predicted estimations about climate change induced species extinction. It attracted the attention of the media, particularly the news and the internet and was extensively misrepresented to the public. The consequences were pictured to look exceptionally catastrophic and the timescale had been shortened; giving the impression that

a mass extinction of thousands of species was going to occur in a short space of time (Ladle et al, 2005). The results of the study, described by the author were;

> *"An estimate of proportions of species committed to future extinctions as a consequence of climate change over the next 50 years',*

And,

> *"Not the number of species that will become extinct during this period."*
> - Ladle *et al*. (2005) 232

Here first hand, science can be seen to unintentionally misinform the public, inducing an increased sense of risk that is not necessarily required.

2.5 Public understanding, perception and concern

Ultimately, we can draw upon research examined to analyse the impact the media has on the public's understanding of climate change and how this can shape concern. The key issue found through-out is a deficiency of trustable and reliable information available to the public. The importance of media coverage is to not only communicate the effects of climate change but also to bring attention to and current government action (Gavin, 2009).

Research has found the media to be highly valued amongst the public as a source of information due to a lack of information being gained from scientific sources (Allen *et al*. 2000; Corbet and Durfee, 2004; Lowe *et al*. 2006). Predominantly television and daily newspapers are favoured amongst the public (Boykoff, 2009). These sources have been recognised to be very important to the public from a 'non scientific' point of view (Russil and Nyssa, 2009).

One issue concerning this is that a large proportion of the public do not know what climate change is and confuse it with other commonly used terminology. Whitmarsh (2009) found that although the terms "climate change" and "global warming" are universally recognised,

a large proportion of the public are not confident with their meanings and know little about the consequences and scientific facts.

Confusion surrounding the meaning of climate change often causes panic amongst the public. It was noted by Dr Richard Betts of the Met Office that people;

> *"...link every heat wave, major flood, drought and famine to global warming"*
>
> - Betts (2010)

For studies conducted concerning public understanding, the study on *The Day After Tomorrow*, conducted by Lowe *et al*. (2006) can be drawn upon. The study was conducted in Norwich and was devised of a two part survey questionnaire and focus groups. Surveys were completed before and after a public viewing of the film to analyse before and after effects. The investigation concluded that after seeing the film more viewers expressed a "strong motivation to act on climate change" (Lowe *et al*. 2006: 453).

It was found that like many sources of information (including government policy) the film sent the audience mixed messages. It was finally suggested that the large scale effects of climate change would only appear more realistic if they were presented in more "local terms" (Lowe *et al*. 2006: 454).

Many studies have been conducted by Leiserowitz, particularly in the USA, regarding public opinion and have found similar results. Here, it was again found that the public are easily manipulated by information in the media, shaping levels of concern. Although the public rate climate change very highly as an environmental risk, their level of concern is relatively low in comparison to other world events (Leiserowitz, 2006).

This concurred with UK studies where Lorenzoni and Pidgeon (2006) found results from surveys completed in 2004 stated that climate change was not the public's highest priority.

These results were found to be a consequence of the 9/11 disaster, rendering environmental issues as less of a threat.

In the early 1990s, it was noted that there was a sudden fall in the reports on climate change, due to what was thought to be more pressing issues, particularly the economy and in more recent times, the Iraq war (Anderson, 2009; Boykoff and Boykoff, 2007; Carvalho and Burgess, 2007). Over the next decade rises and falls in media coverage of the subject can be directly related to policy events such as the release of the IPCC report, the Kyoto Protocol and the release of *An Inconvenient Truth* (Anderson, 2009).

Chapter 3 - Methodology

Chapter three looks at the different forms of methodology used during the investigation. Two forms of methodology were chosen to gain an in depth insight into the public's perception of climate change, which includes public survey questionnaires and a focus group. Before any research was carried out, the appropriate health and safety and ethics forms were completed, which can be seen on Appendix 1 and 2.

3.1 Chosen Methodology

The methodologies used were specifically chosen to ensure a good variety of both qualitative and quantitative results. Public survey questionnaires are a relatively recent method used to gain information on public opinion (Bord *et al*. 1998), so careful consideration went into their production to allow for varied and usable results.

The questions chosen were predominantly closed questions, asking for "yes" or "no" answers, keeping the questionnaire simple and to the point. Where needed, respondents were asked to give more detailed information regarding their personal knowledge. This enabled a broad overview of their knowledge and opinion of the subject.

Public focus groups have been seen to provide extremely detailed and informed results (Lowe *et al.* 2006) around the subject and so was a vital component of the study. The sections covered in the focus group were carefully considered to ensure a large enough variety of media sources were compared.

3.2 Pilot Study

Before carrying out the full investigation, a small pilot study of twenty surveys was completed. These were handed out to friends and family of the author to assess if the questions asked were suitable, easy to understand and would obtain enough information. A copy of this can be seen as Appendix 3. Although the public survey questionnaires were

predominantly to gain background information to use against the focus group, it was still important that the questions asked would gain the correct results.

The results from this study showed that in order to gain the information needed, a number of the questions required rephrasing. The final question for example, asked the sampled public to rate climate change on a scale of 1-10, with one being the highest level of concern and ten being the lowest. In many cases this question was misunderstood and answers given did not reflect true opinions. It was also clear that extra questions needed to be devised in order to fulfil the aims of the investigation.

3.3 Main Study

Following the pilot questionnaire, a total of one hundred and three surveys were completed, which were handed out to the general public to complete. They took into account the age and gender of the respondents to analyse if this had any impact on the answers given. A copy of these surveys can be seen as Appendix 4.

A cover letter was attached to give a small background into the study, which can be seen as Appendix 5. The respondents were chosen at random from the city of Preston and the surrounding area to allow for varying results. A brief explanation of the study was provided where needed, to ensure the public were comfortable with the questions being asked.

The survey was developed for respondents aged sixteen and over and the age of respondents varied up to the age of sixty five. However, a larger proportion of respondents were from younger age groups, under the age of thirty.

3.4 Focus Group

The focus group discussed in more detail the public opinion of climate change and the media influence. A number of sections were devised, each one looking at different areas within the media spectrum. The questions asked varied according to the type of media being discussed. These can be seen in Appendices 6-10. The sections included motion pictures, television advertisements, documentaries, online newspaper articles and BBC

online articles. All of these were looked at in depth and the information given was analysed and compared to each media source.

The focus group was made up of seven people, aged twenty to thirty, who were selected by the author. Importance was placed on the variation in each of the member's educational background to make sure there was little outside influence on the results found. The information given by respondents was recorded (with their permission) using a Dictaphone to ensure for an accurate analysis and discussion.

Although discussions were prompted by questions, they allowed for respondents to cover any other issues which they thought were important, with relevance to the topic being discussed.

3.4.1 Television media

The first section looked at television media, starting with motion pictures and documentaries. Clips from the film *The Day After Tomorrow* and the documentary *11th Hour* were shown and the documentary *An Inconvenient truth* was discussed with relevance to other media sources.

The film *The Day After Tomorrow* was an important step into bringing climate change into the media in a way that would attract the public to the issues and so was a vital component of the study. The film shows a climatologist who attempts to save the world from the effects of abrupt climate change (Internet Movie Database, undated).

Documentary *11th Hour* was released in 2007, narrated by Hollywood actor Leonardo DiCaprio. It attempted to highlight the risks of climate change using information from all areas of science, featuring a large selection of scientists and researchers. Discussions were particularly centred on the director and the impact his status may have had on the popularity and credibility of the film.

Three previously aired television adverts were also drawn upon. The adverts were compared to each other and other media sources, examining the information contained and analysing their reliability and potential impact.

3.4.2 Articles

The next section focussed on the written media in the form of newspaper and online articles. These focussed on both climate change itself and also reports on the motion picture and documentary previously.

Articles have been produced criticizing information in *An inconvenient Truth*, which found the documentary to have exaggerated the likely affects of climate change. Justifiably these articles caused much concern with regards to the reliability of the media and the information it provides. Discussions here focussed on the way the media relay climate change information and the impact reports about this documentary had on its credibility.

Chapter 4 – Survey Questionnaire Results and Analysis

Chapter 4 will present the results gained from the public survey questionnaire. Each question has been broken down to show the variations between the different age groups surveyed. These results will each be analysed and suggestions will be made based on relevant literature looked at in the literature review.

4.1 Knowledge of respondents

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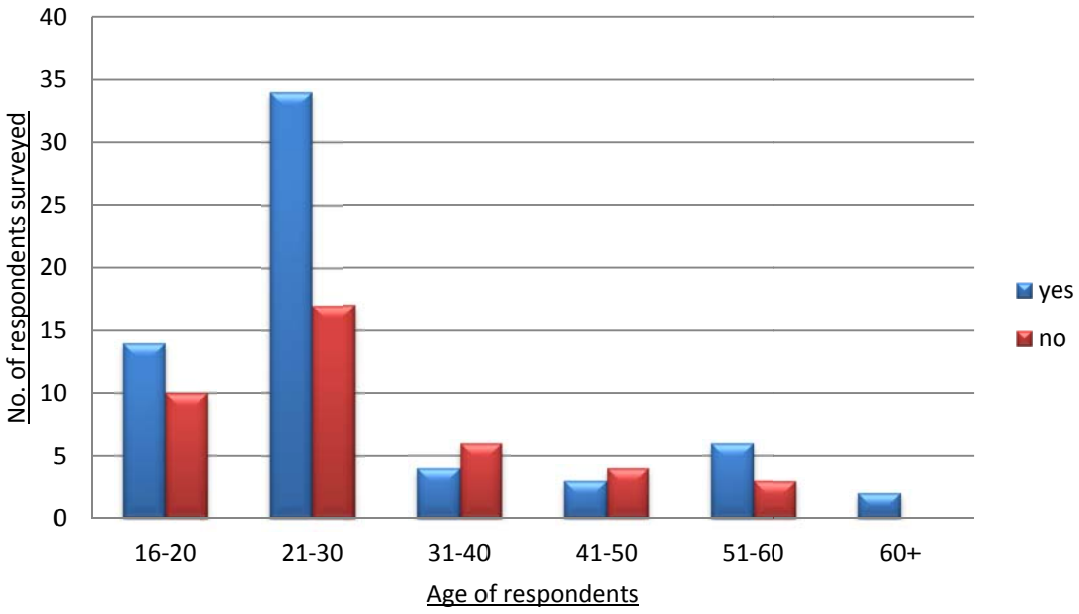
It was found that 43% of respondents expressed that they had "some" knowledge about climate change and its risks with only of 24% claiming to have "a lot". This predominately (21%) came from younger respondents (16-20 and 21-30). Only 33% of respondents said they had "a little" amount of knowledge or less, suggesting a significant amount of information available to the public.

Figure 2. Do you confidently know the difference between, greenhouse gasses, climate change and global warming?



It was found that 61% of respondents claimed they knew the difference between the three phrases. Whilst researching a variety of media, it was found that these three phases were the most commonly used, however there was a significant absence of any meaning.

It was found that 70% of respondents were able to name two associated risks or consequences. A small percentage were able to name one, however these were not included in the results as the question stated to name two. The answers given can be seen in Table 1.

Table 1. Responses given from Question four of the public survey questionnaire

4.1 The most common answers to be given were:

"Rise in sea levels."

"Melting of the ice caps."

"Increase in large flooding events."

"Warmer weather"

4.2 A small amount of surveys contained other answers such as:

"Desertification"

"Changes in animal migratory patterns"

The answers given in 4.1 were the most popular answers across all age groups, suggesting these are the most commonly mentioned consequences, which are most publicly understood. The answers given in 4.2 were predominantly from younger age groups suggesting educational sources.

It can be seen in the results that a relative amount of knowledge is held by the respondents, corresponding with a large amounts of previous research (Lorenzoni and Pidgeon, 2006; Bord *et al*. 1998; Lowe *et al*. 2006). It was apparent that the younger age groups had a much greater understanding of climate change which suggests information sources outside of the media, potentially from educational institutions.

Climate change is a topic which has been found to potentially be difficult for the public to conceptualise, particularly the understanding of anthropogenic causes (Bord *et al*. 1998; Lorenzoni and Pidgeon, 2006), suggesting why 39% of respondents were unable to understand the differences between the phrases asked. Much of the publics' knowledge on scientific issues is inconsistent and gained on a need-to-know basis, which can be found across all areas of science. Certain populations have been found to be more motivated to seek out specific pieces of information only when it is needed (Ungar, 2000).

The consequences given by the respondents largely suggest a strong media influence, as it has been found that many environmental issues have become particularly distant in the press, with many issues such as deforestation, having become yesterdays' news (Revkin, 2007).

4.2 Information source

It was found that the most predominant information source was the television news; with 46% of respondents saying this was their source of information.

The results dominate all age groups; showing that 68% of respondents believe the media to provide both conflicting and confusing information.

It was found that the public are predominantly reliant on the media to educate them and are not engaged with scientific research (Smith and Joffe, 2009). Despite this, results show little confidence in what is told by the media.

The popularity of television media (64%) can be linked to the work of Boykoff and Goodman (2009) indicating a large trust in figures who present information on the television. These figures are predominantly trustable news readers or well known politicians, suggesting more credible information being presented.

Using the work of Revkin (2007) it can be suggested that problems arise with communication due to framing of information. This is a challenge which is pressured by deadlines and a limited supply of time for information to be broadcast. Information is said to be extremely exaggerated or ignored, leaving the public with only half the story.