Australian newspaper reporting of the nation's deadliest bushfire

Black Saturday

Australian newspaper reporting of the nation's deadliest bushfire

MONASH CLIMATE CHANGE COMMUNICATION RESEARCH HUB
KEY FINDINGS

- Of the 3552 articles which covered Black Saturday, taken five days either side of the event, 170 related to climate change, which equated to 5% of the overall coverage.

- The overall coverage most commonly featured a triumph of humanity narrative, making up 28% of coverage compared to the unstoppable power of nature (18%), failure of planning (13%) and human deviance (9%).

- In the lead up to Black Saturday, media coverage tended to focus on condemning arsonists with the human deviance narrative, which continued for several days. However, following Black Saturday itself, the primary narrative shifted towards the unstoppable power of nature.

- There were key differences in the narrative framing of climate change, compared to overall coverage. Whereas overall coverage focused on celebrating mateship, community and volunteers, articles discussing climate change focused more on the ferocity of the event and how, with climate change, extreme weather events like Black Saturday will become more common.

- Of the articles that did mention climate change, coverage was overwhelmingly in depth and accurate, with only 21% of articles featuring climate denialism.

- Of the climate denialism articles, many blamed the Australian Greens Party or denied the impact of climate change on the Black Saturday fires altogether.

- Despite accounting for 33% of the overall coverage of Black Saturday, News Corp articles made up 53% of all articles featuring climate denialism. Fairfax articles made up 15% of all articles featuring climate denialism.

- The ABC and the Canberra Times had the lowest proportion of denialist coverage, making up 3% of the denialist coverage.
FIGURE: The most commonly used words in overall reporting around Black Saturday:

FIGURE: The most commonly used words in reporting around Black Saturday and climate change were the following:
INTRODUCTION

Scale of destruction and worst affected areas

More than ten years on, Black Saturday lingers still in the Australian memory and to this day remains the nation’s highest-ever loss of human life from a bushfire event.¹ On the back of a record-breaking hot and dry summer, with weeks of heatwave in the south-east of the country, the 7th of February 2009 saw catastrophic fires ignite across areas of Victoria, most devastatingly in the Kinglake area.

On the morning of Black Saturday high winds blew in across the state, reaching storm force in the afternoon,¹ as record high temperatures were reached, with Melbourne peaking at 46.4°C, culminating in unprecedented conditions that surpassed both Black Friday in 1939 and Ash Wednesday in 1983 in terms of fire danger.²

Up to 400 fires, affecting 78 communities, were recorded in Victoria on the 7th of February alone.³ In the following four weeks, as the fires continued, 450,000 hectares ultimately burned, resulting in 173 deaths and approximately 400 non-fatal injuries.⁴ In addition to major infrastructural, agricultural and horticultural losses, thousands of structures were destroyed, including over 2,000 homes, displacing some 7,500 people.⁴ It is estimated that up to one million animals perished in the Black Saturday fires.⁴

Areas such as Central Gippsland and Beechworth, as well as Bunyip State Park and Wilsons Promontory were majorly impacted by Black Saturday. However, Marysville and Kinglake areas suffered the most catastrophic losses, together accounting for over half of the total area burned.⁵ Of the 173 lives lost in Black Saturday, 40 were in the Marysville area and 119 in the Kinglake area.⁴

Climate conditions that shaped Black Saturday

The intense heatwave and severe drought conditions leading up to Black Saturday both contributed to the intensity of the fire.⁶ Prior to the event, the predicted fire danger was literally off the charts—Black Saturday exceeded the scale designed to measure fire risk.⁶ With a rating of 110, Black Saturday’s danger exceeded the existing Forest Fire Danger Index (FFDI), which previously ranged 0–100. Following Black Saturday, a new “catastrophic” category was added for predicted fire danger exceeding 100. In Victoria, this is known as ‘Code Red’.⁶

Much of Victoria experienced below average rainfall in the lead up to Black Saturday.⁶ Many of the regions impacted by Black Saturday had their lowest rainfall on record during the summer of 2008/09. Marking the tail end of the Millennium drought, fuel loads were also extra dry and water availability was low. According to the Bureau of Meteorology (BOM):
“This was drought on a scale that Australia hadn't recorded before and the dryness of the landscape that resulted was a key ingredient in the cocktail of dangerous weather factors that contributed to the terrible events of the day.”

Bureau of Meteorology, 2019

FIGURE: From the late 90s through to the late 2000s, large swathes to south eastern Australia were in the "Millennium Drought", which was characterised by long periods of low rainfall. Many areas (shown here in the deepest red) had record low rainfall during these years.

This dryness worsened in the weeks leading up to Black Saturday. Melbourne saw no rain for 35 consecutive days, its second longest dry spell on record. Many other locations around Victoria also set record lows for rain in the build up to Black Saturday.

On the 7th of February, 87% of Victoria experienced record high heat. Off the back of long-term drying, humidity on the day was also below 20%. According to the BOM, this heat was due to a slow-moving high pressure system in the Tasman Sea, an intense tropical low off the northwest coast of Western Australia and an active monsoon in the north. These factors saw hot air from the tropics move southward and produce an unprecedented heatwave from the 6th-8th of February. Some places saw maximum temperatures more than 23°C above the February average. The City of Melbourne recorded 46.4°C, its highest maximum temperature ever recorded. Hopetoun, in the Mallee region, also set a new all-time record for Victoria, climbing to 48.8°C.

Strong winds throughout the day were also major climatic factors in Black Saturday’s devastation, fueling bushfire conditions. Northwest winds drove fires throughout the day until a south-westerly change came through that turned long, narrow bands of flame into massive fire fronts on their eastern flanks which moved at terrifying speeds. The south-westerly change saw the formation of powerful thunderstorms and pyrocumulonimbus. The fires smoke plumes produced active lightning and ignited additional fires. Extreme wind gusts of over 115km/h were also recorded at Mt William and Mt Gellibrand.
“Record-breaking heat and unprecedented dryness combined with very strong winds set the scene for these horrific fires—and made them exceptionally challenging to fight.”

Bureau of Meteorology, 2019

Attribution studies on the fires

Detection and Attribution (D&A) studies can be used to determine whether an event was made more likely by climate change. While many D&A studies exist for heat and rainfall extremes, D&A studies for fire events have only recently become possible.

One early D&A study that focused on Black Saturday found that climate change "increased the likelihood of elevated wildfire risk over southeast Australia during the 2008–2009 fire season", especially in spring. However, it found that this risk increase was probably smaller than increases attributable to the El Nino Southern Oscillation (ENSO).

Other recent studies have applied the D&A framework to recent Australian fires in Queensland and eastern Australia. These studies generally show a clear link between increasing CO2, high temperatures and a fire event. But other aspects of fire danger, like rainfall changes, are still difficult to examine.

Because of these challenges, D&A analysis of fire is still an area of active research. Sanderson and Fisher, reflecting on these challenges, argued that scientists must strike a difficult balance in order to avoid either oversimplifying attribution or failing to attribute altogether.

Other lines of evidence highlight the link between climate change and fires. A 2007 study commissioned by the Climate Institute projected an increase in the number of very high or extreme fire weather days (the Catastrophic, or Code Red, rating had not yet been introduced). At lower rates of global temperature rise (0.4°C increase by 2020; 0.7°C by 2050), the number of extreme days was projected to increase 5–25% by 2020 and 10–50% by 2050. At higher rates of warming (1.0°C by 2020; 2.9°C by 2050), the number of projected extreme days rose as high as 65% by 2020 and 100–300% by 2050. The world has, as of 2018, warmed by just over 1°C.

The lengthening of the fire season was also foreseen before Black Saturday. Economist Ross Garnaut’s 2008 Climate Change Review said that projections of fire weather "suggest that fire seasons will start earlier, end slightly later, and generally be more intense” and that “this effect increases over time, but should be directly observable by 2020.”
Political and policy contexts before and after Black Saturday

Australia’s 2008 White Paper

The Black Saturday fires were preceded by the release of a White Paper in December 2008 by then-Federal Minister for Climate Change and Water, Penny Wong. The paper proposed a transition to renewables and outlined a Carbon Pollution Reduction Scheme (CPRS) that established a “cap and trade” system, which was scheduled to begin in July 2010. The scheme placed a price on carbon by requiring greenhouse gas emitters to purchase permits for every tonne emitted. This was designed to incentivise a reduction of emissions through a limited amount of carbon permits available for trade. The CPRS was intended to assist with meeting Australia’s obligations under the United Nations Kyoto Protocol. At the time of the scheme’s announcement, the government reiterated its commitment to a 5-25% emissions reduction below 2000 levels by 2020, and a 60% reduction below 2000 levels by 2050. The paper’s release was combined with the announcement of a $2.15 billion Climate Change Action Fund, designed to support small-scale businesses adjust to the emissions trading scheme. December 2008 also saw then-Prime Minister Rudd signal a “solar revolution” and a shift towards solar rebates for homes and small-scale businesses.

Black Saturday Royal Commission findings and recommendations

The actions of affected Victorian communities and the fire agencies that assisted them on Black Saturday were informed by a national response framework, “Prepare, Stay and Defend or Leave Early.” This was more commonly known by the slogan “Stay or Go.” The framework advised bushfire-prone communities to either prepare and defend their properties against a bushfire, or plan to leave early. Given the unprecedented loss of life that eventuated, the policy came under close scrutiny in the days and months following, and formed a critical part of the subsequent Royal Commission’s analysis.

Mr John Gledhill, Chief Officer of the Tasmania Fire Service, explained in evidence to the Royal Commission that:

“The basic message of Stay or Go [was] that able-bodied people should be allowed to stay with their homes and actively defend them in the event of a fire.”

Mr John Gledhill, 2009

Implemented after the 2003 Alpine fires, Stay or Go was designed to address late evacuations or those unprepared to stay and defend their properties. This approach was informed by research which found that the greatest proportion of civilian deaths occurred during late evacuations. Black Saturday sadly saw a continuation of this trend as those preparing to evacuate could not anticipate the speed of the fire front, and those who prepared to defend were unable to
anticipate or survive the ferocity of the fire front. These combined to produce the highest mortality rate of any Australian bushfire.

As highlighted by the Royal Commission Interim Report, the policy was subject to the caveat that:

“It must be recognised that in limited cases, some buildings, due to their construction methods, construction materials, the site they are located on or their proximity to high and unmanageable fuel loads, cannot for all practical purposes be defended against high intensity bushfires. In these circumstances, householders should be encouraged to relocate early if the intensity of an approaching bushfire is likely to make conditions unsafe.”

2005 Australasian Fire and Emergency Service Authorities Council position paper

The term “leave early” has been repeatedly highlighted as ambiguous, and the CFA policy to communities was found by the Royal Commission Interim Report to be “silent on the risks of physical harm or the ultimate risk of dying in the attempt to defend”.

The Commission found that “the stay or go policy failed to allow for the variations in fire severity that can result from differing topography, fuel loads and weather conditions”. Ultimately it was concluded that though “central tenets of the stay or go policy remain sound”, the events of the 7th of February “severely test(ed) the policy and exposed weaknesses in the way it was applied”. Critical modifications to the existing policy were recommended, chief among them that “the safest option is always to leave early rather than to stay and defend”.

Nixon controversy

In mid-April 2009, a heated topic of discussion in the popular press became the decision of then-Police Chief Commissioner Christine Nixon to leave the integrated Emergency Coordination Centre and have dinner with friends on the evening of Black Saturday. Then-shadow Immigration Minister Scott Morrison stated on an April 2010 episode of Q&A that:

“She’s clearly made a bad judgment call. That happens to people from time to time, but this was a very serious issue.”

Scott Morrison, 2010

On the 17th of April, former Premier Jeff Kennett derided Nixon as a “blot on the landscape.” Nixon was supported by then-Victorian Labor Premier John Brumby and Prime Minister Rudd in continuing the bushfire recovery efforts. The Royal Commission later found that Nixon’s “hands off” approach fell short of what was expected of her role, and that her approach to the emergency coordination was “inadequate”.
Australian attitudes to climate change at the time of Black Saturday

A study of climate science in Australian newspapers conducted a few years after Black Saturday found that extreme weather events, such as bushfires, are a key time to communicate the impacts of climate change. It could be argued that the intensity of Black Saturday was an opportunity for the Australian media to meaningfully explore the link between climate change and extreme weather.

Not long after Black Saturday, three studies (Ashworth et al. 2011, Hine et al. 2013 and Morrison et al. 2013) analysing Australian attitudes to climate change were also conducted. These studies use what is known as Latent Profile Analysis (LPA), adapted from a foundation study conducted at the Center for Climate Change Communication. LPA typically uses a range of variables representing four distinct constructs: global warming beliefs, issue involvement, policy preferences and behaviours, and it may also include climate literacy.

Firstly, building on the work of the Center for Climate Change Communication and the Yale Program in Climate Change Communication, Don Hine and his colleagues at the National Climate Change Adaptation Research Facility added many additional environmental factors.

These included environmental concerns, green self-identity, emotional connection with nature, perceived spatial proximity and potential effects, trust in authorities and distress. While the American studies came up with Six Americas based on their findings, Hine arrived at Five Australias: Alarmed, Concerned, Uncertain, Doubtful and Dismissive.

*FIGURE: Adapted from Hine et al, 2013: The Five Australias*
Secondly, Peta Ashworth and her colleagues limited their factor analysis to in-depth climate change literacy and concern, which delivered only ‘Four Australias’ — Engaged 27%, Concerned and Confused 36%, Disengaged 15% and Doubtful 23%. The doubtful group also included a clear dismissive sub-group, meaning that splitting this group would also yield five Australias.25

Finally, in 2013, Mark Morrison and his colleagues wanted to compare Australia and the US, and found six Australias by using broader variables in their survey, including: climate beliefs, issue engagement, policy support and behavioural response (energy use) and a small number of climate literacy questions. They found there was a smaller proportion of the Australian sample in the Alarmed and Concerned categories. Another noteworthy result was that more than 40% were Disengaged, Doubtful or Dismissive in Australia, compared to 30% in the US.26

CODING METHODOLOGY

The database Factiva was used to locate newspaper articles from within Australia, using search terms related to Black Saturday and bushfire coverage. Overall, there were more than 36,500 articles listed in Factiva, with almost 9,400 in 2009 alone.

A sample of 3552 was taken from within Australia five days before and after Black Saturday ranging from the 2nd to the 12th of February. One in every ten of these articles were randomly analysed to examine key trends in the overall media reporting of Black Saturday. An additional 170 articles specifically relating to climate change or global warming were also analysed for narrative themes, use of experts and the context of climate change discussion.

Based on previous research of Australian media reporting of extreme weather events, the Black Saturday articles were coded using axiomatic coding which considered the narratives triumph of humanity, unstoppable power of nature and a failure of planning.27-28 Open coding was also used which found new narratives in Black Saturday’s reporting, such as the human deviance narrative which blamed the fires on arsonists. Use of experts and ownership of newspapers covering Black Saturday were also analysed. Descriptions of these narratives can be found in the appendix.
REPORT FINDINGS

The period of Black Saturday and the devastation it caused led to a flurry of media activity, making it one the most heavily reported events in Victoria’s history. Given the large number of articles related to Black Saturday, a subset of articles from five days before and after Black Saturday were analyzed. Of the 3552 articles published in this window, 170 were related to climate change, which made up 5% of the overall coverage during this period. Of this sample, 35% came from News Corp. Together, News Corp and Fairfax made up 57% of all coverage.
Narratives of overall Black Saturday reporting

Overall, the most common narrative to emerge in the coverage of Black Saturday was the *triumph of humanity* narrative, which was found in 28% of coverage. This narrative focused on discussion of mateship, heroism and altruism as people battled to save their homes and livelihoods and began rebuilding in the aftermath of the disaster. In contrast to this was the *unstoppable power of nature* narrative which was found in 18% of articles and highlighted the destructive power of the event. Following this, 13% of articles framed the event as a *failure of planning* and *human deviance* was found in 9% of articles.

There were key differences in the narrative framing of climate change, with coverage focusing on the *unstoppable power of nature* narrative as opposed to the *triumph of humanity* narrative. Compared to overall coverage, there was a shift away from celebrating mateship, community resilience and volunteers, to looking at the power and ferocity of the fires. Primarily, articles discussing climate change focused on the unstoppable power of nature and how extreme weather events like Black Saturday were to become more common due to climate change.

Within the *unstoppable power of nature* narrative, the intensification of extreme weather events due to climate change was referenced in 29% of articles, and 4% of the overall sample. Almost as prominent as the *unstoppable power of nature* narrative was the discussion of climate change and *failure of planning* narrative (41% of articles), as building standards at the time were not equipped for fire events as intense as Black Saturday. Further, many articles in the overall sample linked numerous deaths to misinformation around the “stay or go” policy and a lack of public awareness of the speed and intensity of the fires. Articles discussing a failure of planning often suggested that the devastation of Black Saturday could be repeated as extreme weather intensified with climate change if this policy did not change.

Human deviance, especially arson, was blamed for the fires in 9% of overall articles as well as in 22% of articles discussing climate change. Where climate change was discussed alongside human deviance, this was often accompanied by denialist narratives. Human deviance was presented as an alternative to climate change; with arsonists being presented as the primary driver of the fires and the impacts of climate change dismissed.

**Key narratives**

**Reporting of Black Saturday bushfires**

<table>
<thead>
<tr>
<th>Narrative</th>
<th>Climate Change</th>
<th>All Articles</th>
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<tbody>
<tr>
<td>Human deviance</td>
<td>20%</td>
<td>22%</td>
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<tr>
<td>Failure of planning</td>
<td>60%</td>
<td>41%</td>
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<tr>
<td>Unstoppable power of nature</td>
<td>60%</td>
<td>41%</td>
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<tr>
<td>Triumph of humanity</td>
<td>80%</td>
<td>28%</td>
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Narratives of climate change reporting

Overall, the framing of climate change was overwhelmingly accurate, with only 21% of articles featuring climate change denialism. This is far lower than those found in any other case study of extreme weather reporting in Australia. This is credited to Premier Brumby linking Black Saturday to climate change and advocating for higher building standards in bushfire areas in the aftermath of the event; with much of the accurate and in depth climate change discussion referencing or coming after this speech. This attention also accounts for the discussion of the intensification of extreme weather events with climate change and calls for adaption to withstand this higher intensity of events; both of which were in higher proportion than discussion around the South Australian mid-latitude cyclone in 2016 and Brisbane floods of 2010-11.

Key narratives in the discussion of climate change

![Chart showing number of articles discussing different narratives]

**FIGURE:** In depth and accurate discussion of climate change can occur in a number of contexts. In Black Saturday reporting, calls for adaption, mitigation, representation of science and discussion of extreme weather events intensifying all featured heavily. Denialism also featured.

Black Saturday coverage over time

As expected, coverage spiked after the Black Saturday fires began on the 7th of February. Before then, there was coverage of smaller fires that were burning around the state. A number of these fires were deliberately lit, meaning the most prominent narrative before the fires was human deviance, which condemned arsonists and looters. This theme continued into the coverage after Black Saturday.

After the Black Saturday fires, initial coverage primarily focused on the unstoppable power of nature. Following this, the triumph of humanity narrative dominated from the 9th to the 11th of February, with coverage highlighting the generosity of volunteers and communities as well as stories of locals fighting to survive the blaze. The term “Black Saturday” was first used on the 9th of February.

Increased discussion of the “failure of planning” came after Premier Brumby called for an increase to building regulations on the 10th of February, which also increased the discussion of climate change. The media primarily placed blame on
the “stay or go” policy and building regulations in bushfire regions in Victoria. Discussion of climate change, both accurate and denialist, also primarily came after this date. Coverage that referenced climate change before this point was relatively low. This coverage tended to focus on experts discussing the link between the intensification of weather events and how climate change contributed to the hot, dry conditions that made Black Saturday so dangerous. The discussion of climate change also showed increased use of the failure of planning narrative when compared to other articles. Premier Brumby’s announcement of a Royal Commission into the failings of policies likely contributed to the high use of the failure of planning narrative and discussion of climate change in reporting, with articles questioning how communities could cope with the growing intensity of bushfires.

**Discussion of Climate Change**

Daily number of articles related to climate change

**Key Narratives**

Daily reporting of Black Saturday bushfires

**FIGURE:** Narratives and climate change coverage shifted in response to key events after the fires on 7th of February, such as Premier Brumby’s speech on the 10th of February.
**Experts featured in reporting**

Politicians were the most referenced experts, followed by firefighters and scientists. This is significant as research has found that firefighters and climate scientists are two of the most trusted sources in communicating the impacts of climate change in Australia, while politicians were found to be the least trusted.  

Unlike other case studies in Australia, the coverage of Black Saturday is unique as many articles referenced climate scientists in the discussion of climate change. These experts were most often from BOM, CSIRO and Victorian universities and talked about both the impacts of climate change and the conditions that shaped Black Saturday. The “other” category covers a substantial range of experts including insurance agents, architects, doctors and energy distributors who were referenced in relation to the power outages and damages caused by the fires.

**Experts used in the reporting of Black Saturday**

Premier Brumby was by far the most referenced politician, both in climate change discussion and overall discussion of Black Saturday. Both Prime Minister Rudd and Deputy Prime Minister Julia Gillard featured heavily in the coverage after the disaster. Both gave emotional addresses to Parliament and the public in the days following the fires where they were brought to tears by the tragedy, which gained significant media attention.

Police Commissioner Christine Nixon was referenced mainly as an authority of the Black Saturday Inquiry through the period examined in this study. Condemnation of Nixon for leaving the control room for dinner at a nearby pub began in April, approximately two months after the event.
Ownership of reporting

News Corp made up the largest share of bushfire coverage with 33% of articles. The second largest share of coverage was in Fairfax publications, with 22% of reporting related to Black Saturday. These figures were similar in articles discussing the bushfires and climate change, with News Corp’s coverage also at 33% and Fairfax’s coverage at 21%.

News Corp made up 33% of climate change coverage but accounted for 53% of climate denialist coverage. Many of these articles blamed the Greens or arsonists for the fires, or outright denied the impact of climate change. While Fairfax accounted for less overall coverage than News Corp, it similarly featured a high percentage of climate denialism, 15% of denialist articles. Overall, this meant that much of the discussion of climate change misrepresented the science and focused on denialism. The ABC and the Canberra times had the lowest proportion of denialist coverage, making up just 3% of their coverage.
Coverage of climate change and Black Saturday
Ownership of newspaper coverage by percentage

Ownership of climate denialism

FIGURE: News Corp had the most overall coverage of the fires and denialism

FIGURE: A relationship was found between ownership and denialist coverage of climate change.
APPENDICES

Narratives codes and descriptions

Expert opinions

Trusted sources are one of the most effective means of climate change communication. In 2017, the Monash Climate Change Communication Research Hub surveyed 750 Australian’s and found firefighters, climate scientists and farmers were the most trusted communicators of climate information. The most commonly featured experts in Black Saturday reporting were politicians. Although no data exists of 2009 beliefs, politicians were the least trusted group when Australians were surveyed in 2017. Overall, experts featured in reporting were:

- Economists
- Scientists
- Community leaders
- Firefighters
- Politicians

Accurate discussion of climate change

Accurate discussion of climate change is discussion that accurately represents the observed or future impacts of climate change with in-depth reporting. These can range from the direct changes to the climate from rising emissions to secondary impacts such as on health. This discussion can be measured as an accurate discussion of the science or discussion of the intensification of extreme weather events.

Denialist discussion of climate change

Denialist discussion of climate change, also referred to as denialism, does not accurately represent the impacts of climate change and can often be based around fear mongering or complacency. Often in 2009 reporting, denialism consisted of denying the existence or anthropogenic origins of climate change.
Failure of planning narrative

This narrative blames politicians or governments responsible for damage caused by extreme weather events or climate change. This narrative blames human inaction or negligence for impacts or damages. This is particularly focused on politicians who have acted in a way that exacerbates the problems faced by ordinary citizens. In this analysis, the primary areas of criticism were around funding cuts to fire services and federal government inaction on climate action were the main areas of criticism.

Triumph of humanity narrative

This narrative focuses on the power of people and communities to overcome the power of nature. This can include acts of altruism or resilience in the face of hardship. Generally, this narrative focuses on individuals or communities coming together to help others in the face of extreme conditions.

Unstoppable power of nature narrative

The unstoppable power of nature highlights the power of extreme weather events. This narrative focuses on the powerlessness of humans to stop disaster events. The lack of control we have over disasters is generally juxtaposed by the destructive power of extreme weather events.
BIBLIOGRAPHY


