

Policy Brief No. 157 – November 2019

# Leveraging Media Coverage of Disasters to Support Disaster Risk Reduction

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## Key Points

- Disasters focus attention on hazards, creating a window of opportunity to adopt new risk reduction policies. The news media can shape post-disaster policy debate by directing the attention of policy makers toward problems and solutions.
- A content analysis of newspaper coverage around two of Canada's most significant floods reveals that the media are focused more on the short-term impacts of hazards than on the policy problems that underpin flood risk.
- Broadening the constituency of flood risk management advocates and improving outreach with stakeholders could help to better leverage the focal power of media coverage for disaster management policy change.

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## Introduction

Natural disasters receive considerable coverage from news media, which temporarily focuses public and political attention on the hazard that triggered the event, such as a flood or wildfire (Birkland 1997). This period of heightened attention offers a short window of opportunity for advocates and interest groups to propose alternative policies for disaster management (Johnson, Tunstall and Penning-Rowsell 2005). Indeed, advocates have leveraged media attention to influence disaster management policy, resulting in both small adjustments in particular policy instruments (for example, additional funding) and more substantial changes in policy direction (for example, shifting from reactive to prevention-based models) (Sapat et al. 2011; Smith, Porter and Upham 2017). Because natural disasters generate uncertainty for decision makers, their policy choices are influenced by the way in which media narratives frame the urgency and solubility of the problem (Kaufmann et al. 2016; Valencio and Valencio 2018).

The Government of Canada has recently committed to a significant policy change by adopting the Sendai Framework on Disaster Risk Reduction, which commits signatories to better understanding disaster risk, strengthening governance arrangements to manage disaster risk, investing in disaster reduction and resilience, and enhancing disaster preparedness for effective response to “build back better” (United Nations Office for Disaster Risk Reduction 2015). Instead of relying on investment in expensive structural defences and recovery through government-funded disaster

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## About the Authors

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assistance, Canada's new Emergency Management Strategy leverages the Sendai Framework's emphasis on risk mitigation, where investment is shifted toward pre-emptive strategies (for example, risk mapping to limit development in high-risk areas) (Public Safety Canada 2019).

Implementation of this policy shift, however, remains weak, in particular in the area of flood management (Thistlethwaite and Henstra 2017). Flooding is Canada's most common and most expensive hazard, reflecting the bulk of both insurance claims and public disaster assistance costs (Office of the Parliamentary Budget Officer 2016). Practitioners and experts have advocated for the ideas embraced by the Sendai Framework and the recent Emergency Management Strategy for over two decades by endorsing integrated flood risk management. This approach involves the adoption of strategies to reduce the exposure and vulnerability of people and property to flood hazards (de Loë 2000; Kumar, Burton and Etkin 2001; Shrubsole 2000). Governments have been slow to fully implement flood risk management by shifting investment from structural defences and recovery toward instruments such as risk mapping, risk-based land-use planning, managed retreat and property-level flood protection. The implementation gap results from several factors, including weak federal and provincial promotion of flood risk management principles, path dependence associated with significant investment in structural defences and a lack of public engagement due to low risk awareness (Henstra and McBean 2005; Oulahen et al. 2018; Shrubsole 2013).

The news media's role in supporting policy change following natural disasters remains largely unexplored in Canada. This policy brief addresses this gap by analyzing whether and how the Canadian news media frame flooding as a policy problem. The results suggest that media narratives rarely describe flooding as a policy problem and instead emphasize short-term impacts of the hazard. This finding builds on existing literature on the barriers to the adoption of flood risk management by highlighting the important role of news media. The first section briefly reviews existing research on the news media's role in disaster management policy change. The second section describes the results of a content analysis of Canadian newspaper coverage of flooding in Canada. The final section concludes and offers some recommendations

for improving the media's role in supporting the policy shift to flood risk management in Canada.

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## Media and Disaster Management Policy

Researchers have identified two main ways that the media influence public policy. First, they play a role in issue selection and agenda-setting (McCombs and Guo 2014). The identification and coverage of certain issues gives them greater salience, which captures the attention of the public and policy makers. Issues that are covered extensively are often assumed to be of societal importance, which encourages policy makers and advocacy coalitions to add these issues to their own agenda (Scheufele and Tewksbury 2007). Second, media framing of issues can mobilize different constituencies (Entman 1993; McCombs 2004). Media narratives that identify the cause of policy problems and outline potential solutions narrow the way issues are interpreted, and groups can use this framing to advance their own interests (Borquez 1993; Tewksbury et al. 2000).

Research has found that media narratives are more conducive to policy change in the area of disaster management when they incorporate certain content. First, the explicit identification of a policy problem (for example, the lack of publicly available maps, poor evacuation planning) focuses decision makers on a specific gap that they have the authority to address (Jones, Shanahan and McBeth 2014). Second, linking this problem to a specific stakeholder (such as a flood victim or municipality) can impel policy makers to act, because they are likely to pay attention to claims based on experience or expertise (Howland, Larsen Becker and Prelli 2006; Happer and Philo 2013). Third, expertise combined with credible evidence supporting policy change makes a media narrative more likely to influence policy change (Crow et al. 2017). Fourth, specifying a policy solution increases the likelihood of policy change because it reduces uncertainty among policy makers and provides a foundation for concrete policy proposals (Smith, Porter and Upham 2017).

A final element of media narratives that can influence policy change is the way in which they frame disaster risk, and this has multiple

dimensions. Stories that frame disaster risk as urgent (likely to get worse) and solvable through policy intervention increase the likelihood of policy change because they counter the often-prevailing perception that disaster impacts are the inevitable result of living with nature (Rochefort and Cobb 1993; Donaldson et al. 2013). Similarly, describing disaster risk as a personal responsibility and prescribing actions to reduce risk can encourage policy change in line with the principles of flood risk management, which include sharing responsibility between governments and individuals (Escobar and Demeritt 2014; Sayers et al. 2013). Lastly, linking a disaster to climate change increases the potential for policy change because it portrays a broader pattern of impacts that cannot be discounted as anomalous. Making this link can activate a broader and wider constituency of support for policy reform (Crow et al. 2017; Escobar and Demeritt 2014).

### Box 1: Elements of Media Narratives that Support Policy Change

- Concrete policy problem identified
- Problem linked to a specific stakeholder
- Credible evidence provided to support policy change
- Policy solution specified
- Risk framing
  - urgency
  - solvability
  - personal efficacy
  - link to climate change

Based on previous research on the media and disaster management, policy change is more likely when media narratives include certain elements (Box 1). Using these narrative elements as a coding framework, a content analysis was conducted of media coverage around two of Canada's worst flood events — the southern Alberta floods (June 19 to July 12, 2013) and the Greater Toronto Area floods (July 8-9, 2013). These floods were targeted for investigation because they are

considered focusing events for public attention, their impacts were limited to a particular area and the coverage was disseminated and shared by the public and decision makers. They were also chosen since they are, to date, among the most damaging natural disasters in Canada's history.

Factiva was used to identify a sample of newspaper articles for this analysis from the *Calgary Herald*, the *Toronto Star* and *The Globe and Mail*. To ensure the analysis remained consistent with previous studies (Crow et al. 2017) on media coverage of natural disasters and influence on public policy, newspaper articles from sources representative of both national and regional coverage were chosen. Coverage in *The Globe and Mail* serves as a national perspective whereas the *Calgary Herald* and the *Toronto Star* offer more specific narratives linked to municipal and provincial policy. After searching for articles that contained flood-related content, a manageable sample of 1,108 articles was established. Each article was then manually coded for the narrative elements conducive to policy change.

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## Public Policy and Flooding in Canadian Media

Although both the Toronto and Alberta floods received significant newspaper attention, only 26 percent of articles discussed a policy problem, which is less frequent than those examined in similar studies conducted in the United Kingdom and the United States (Crow et al. 2017; Escobar and Demeritt 2014). Of these articles, only five percent provided evidence to justify the policy problem. In Alberta, public flood mitigation received the most attention, followed closely by recovery and land-use planning. These articles often captured criticism of existing policy and recommendations for reform, such as increased investment in berms and reservoirs or placing limits on development in high-risk areas. Coverage of the Toronto flood focused on infrastructure improvements related to the stormwater system, which was overburdened with water, causing most of the flood damage.

Policy problems associated with specific stakeholders were also infrequent. Flood

victims (24 percent) were the most likely to be found identifying a policy problem, followed by journalists (19 percent), provincial officials (18 percent), policy advocates (eight percent), academics (eight percent), municipal officials (six percent) and industry (six percent). These stakeholders described a range of similar problems, emphasizing that flood management lacks sufficient attention and prioritization by governments. A closer examination of these arguments revealed little evidence, however, that policy change advocates were using the flood as an opportunity to advance their interests. For example, insurers — who at the time were actively supporting measures such as tighter land-use restrictions and building code reform — rarely (six percent) leveraged the coverage to support these policy solutions.

How the media framed risk in terms of urgency (i.e., flood risk is described as increasing) and solubility (i.e., humans can manage the risk) was also coded. Only five percent of articles described risk with a sense of urgency and 14 percent described risk as manageable by humans. Articles with these frames were statistically more likely to include a policy problem, confirming that these narratives are supportive of policy change. Urgency often involved analysis on how flood risk is increasing due to climate change, changes in land use or aging infrastructure. Solubility was often described by highlighting a policy such as the need to limit development in high-risk areas.

To assess if media coverage characterized flood risk as related to climate change, articles were coded according to whether they had no mention of climate change, linked the flood to climate change, demonstrated confusion about the relationship between flood and climate change or denied a relationship between climate change and flood risk. Almost all articles made no mention of climate change (94 percent). Among those that did discuss climate change, linking (91 percent) was the most frequent relationship, followed by confusion (six percent) and denial (one percent). Although there were few articles that mentioned climate change, these were much more likely to include a policy problem.

The majority of the news media on the Calgary and Toronto floods ignored the policy problems and solutions that need attention to effectively reduce flood risk. This is unfortunate, especially since the content of the policy problems and solutions described by the media aligns with expert

recommendations for the adoption of flood risk management. For example, discussions on land-use planning correctly argued that municipalities need more resources to be able to limit the influence of developers who can effectively lobby to secure permits for building in waterfront areas. Similarly, a gap in insurance coverage for overland flooding was also correctly identified as a factor that encouraged property owners to take government disaster assistance and rebuild in high-risk areas.

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## Recommendations

Through its capacity to focus attention on issues and its framing of policy problems and solutions, the media wield influence that could support disaster risk reduction, in particular in the agenda-setting stage of policy formation. However, media coverage of flooding in Canada rarely discusses the policy problems that are responsible for increasing disaster risk. This compounds other barriers to more robust policy reform, including a lack of leadership among senior levels of government, path dependency supporting continued investment in structural defences rather than flood risk management and inadequate levels of public awareness. The following two policy recommendations suggest some strategies that could better leverage the powerful influence of the media in the policy process.

**Broaden the constituency involved in flood management advocacy.** High-level discussions on flood risk management in Canada remain largely technocratic with limited access for other interests, such as consumer and health advocates, local governments, and real estate and legal stakeholders, who would be capable of leveraging media attention to advocate for policy change in the post-disaster period. Flooding is often a tertiary concern for more established Canadian interest groups. Expanding their knowledge of existing flood risk policy and solutions would encourage more frequent and robust efforts to leverage media attention to secure policy outcomes. This is particularly the case for consumers and property owners, who stand to benefit the most from flood-risk reduction. As the authors have argued before, this requires a strategy that involves openly communicating flood risk to the public, educating Canadians about personal and

community flood risks, and encouraging a broader range of stakeholders to share responsibility for flood risk reduction (Thistlethwaite et al. 2017).

**Expand research and outreach on flood risk management policy.** Awareness and knowledge of flood risk management policy among key interest groups must improve in order to encourage media attention. Awareness of flood risk management instruments and when and where they should be adopted remains low, largely as a consequence of the limited research in this area relative to that in other countries. Most research on flooding in Canada involves engineering studies designed to understand the flow and impacts of changing water conditions for applications in other sectors, such as drinking water and hydroelectricity (Perreux 2019). In addition, emergency management programs that implement disaster management policy are skewed toward response and recovery, with less attention devoted to other aspects of flood risk management such as mitigation, preparedness and recovery. More research on these policy instruments and engagement with public officials would help to encourage their adoption and better equip key stakeholders to leverage media attention for policy change.

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