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Responsibility and liability in emergency management to natural disasters: A Canadian example

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ABSTRACT

Most provincial emergency management legislation (Quebec excepted) fails to include regulatory guidelines as to how local authorities reduce community vulnerability. This exposes individual(s) and groups to greater vulnerability to disasters if the local authority decides not to act or provide inadequate management. In addition, access to financial resources to assist or compensate local governments and/or private landowners for damages endured often come with attachments or do not exist. When damages result from a government's action or inaction in the event of an emergency, provisions in provincial legislation and court findings have reduced government exposure to civil liability at common law further exposing private landowners to financial risk.

This paper argues that a lack of standards in emergency management legislation, restrictive access to financial assistance and/or compensation and reduced government exposure to civil liability at common law expose private landowners to greater vulnerability to disasters and the liability attached. It is essential that those responsible for proactive/preventative planning for disasters work from a standard playbook, one which sets minimum safeguards for the public. Absent of clear and fulsome compensation guidelines, private landowners will bear an unfair and disproportionate financial risk.

1. Introduction

In 1970, the Manitoba government completed the Portage Diversion water control work that diverts water from the Assiniboine River during periods of high flow. Its purpose is to deter flooding of valuable farmland and to protect residents of Winnipeg, acting as an emergency mitigation strategy. It is one of several works that the government has completed to control the flow of water within the province. In the spring of 2011, lands along Lake Manitoba and in the Interlake Region experienced significant flooding. Lawsuits commenced arguing that the diversion of water by the Province through the Portage Diversion and the operation of the Shellmouth and Fairford Dams caused increased exposure to flooding in parts of lower Manitoba and that the damages suffered by land owners and First Nations are, in large measure, a result of the Province's actions (see [1]).

In Anderson et al. v. Manitoba et al. [1], the plaintiffs argue that the Province should be found liable for damages on, inter alia, the basis of operational negligence and nuisance. The Government of Manitoba, however, argues that it has "statutory responsibilities to operate water control works as necessary or expedient in the public interest, and policy decisions which balance the interests of all Manitobans are immune from civil liability" (MBQB 255, para. 29–31). In this case, jurisdiction, responsibility and exposure to civil liability at common law are major considerations in determining what liability, if any, a government has in emergency management policy and practice. The intersection of water resources management by provincial authorities and emergency management planning and implementation are directly implicated in the determination of liability.

Despite some progress in transitioning emergency management systems to include disaster risk reduction, emergency management agencies remain reluctant to adopt proactive management for natural hazards. This is due, in part, to the difference in stakeholders' interests, jurisdictional conflict between levels of government, and citizens as 'aggressive consumers' of policy [34]. In fact, governments have rejected adopting risk reduction strategies due to liability concerns, competing priorities, and disruption of cultural values [3,34,4]. This inaction is a reflection of the institutions that govern day-to-day activity as well as the governing bodies who dictate responsibilities and priorities.

Research by the United Nations Office for Disaster Risk Reduction (UNISDR) [42] argues that poor emergency management governance is a main reason for the increase of natural disasters that are otherwise preventable. The main argument advanced is that those responsible for emergency management to natural

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disasters do not actively address disaster risk reduction in their policy and practices [25]. This absence is partly rooted in a culture of blame and blame avoidance. As Charbonneau and Bellavance [5] argue, blame avoidance results from limited transparency, incentives and a lack of consequences attached to performance. This is confirmed by Moynihan's [29] examination of networks in the aftermath of Hurricane Katrina. Moynihan notes that political responsibility is centered in a culture where intra-network and extra-network reputations create "incentives to utilize blame avoidance strategies when failure occurs" (567). The lack of accountability within these networks of public policy from blame avoidance strategies has directly impacted the approach taken to emergency management to natural disasters (see [2,29]).

One approach to resolving this issue is through laws and regulations; however, even then many activists and experts claim that these laws addressing disaster risk reduction have failed to make "the difference they promised" ([25], ix). The adequacy or inadequacy of existing legislative efforts raises an important issue of the relationship between responsibility and liability in emergency management in the context of emergency disaster risk reduction.

Emergency management legislation serves two functions: first, it outlines the powers and authority in a Province to plan for and respond to an emergency; and, secondly, it sets limits on civil liability to protect governments for their actions. As it stands, governments already have reduced exposure to civil liability at common law when compared to an individual or private entity. The underlying issue in each case remains at what point is government action or inaction so unreasonable such that individual (s) or group(s) should not be expected to bear that risk and loss? For example, if a Province, being in control of most waterways within their provincial boundaries, decides to divert water to protect one community but in doing so, puts an individual at greater risk of flooding, is it reasonable for that individual to bear all or even some of the damages that occur without full compensation? At what point should governments be liable for the damages that result from their action or inaction in an emergency situation?

The lack of any emergency planning standard in emergency management legislation and the obscurity of financial assistance and compensation for those impacted by the emergency raise important issues in the law of emergency management. We argue that the absence of accountability and use of blame avoidance are deeply rooted within legislation and financial programs/arrangements which, as a result, gives rise to greater exposure to liability for damages. We propose that there is a need for explicit standards in emergency management policy and practice. Critical to that issue is whether, from a public policy perspective, the risk of inadequate emergency management planning or the absence of such planning should be borne by private interests when there are no measurable standards to which governments must adhere and the courts have recognized a zone of protection from civil liability for all levels of government.

2. Legislative standards

Jurisdiction over emergency management law results from a gap in the Constitution Act [40] which divides legislative authority of the Provinces and federal government over matters in Canada. Both federal and provincial levels of governments are at liberty to define their respective roles in these matters because neither level of government is vested with clear authority for emergencies. While the *Emergency Management Act* (Canada) (SC 2007, c 15) [10] recognizes responsibility for emergency management as a provincial area of responsibility, each province in turn has the authority to delegate that responsibility to municipalities through legislation. As a result, the federal government has very little involvement in emergency management planning and implementation and the Provinces have jurisdiction to make laws that impose obligations on local governments to do things or not do things. Emergency management in Canada has, in large measure, been devolved to municipal governments. This is not to say that the Provinces have no responsibility in emergency management as they have responsibility for land and water within their provincial boundaries. As shown above, they have been involved in controlling the flow of water throughout their provinces which has been utilized as a tool in emergency management—the preparation for impeding emergencies caused by natural forces.

Unlike the Province or federal government, municipal governments do not have the luxury of determining their roles. They derive their power and existence through legislation, such as a *Local Government Act* (RSBC 1996, c 323, as amended) [28] or *Municipal Act* (SO 2001, c 25, as amended) [31]. They are creatures of statute. Municipal governments, like private entities and citizens, are bound by provincial statutes, including those that impose obligations and standards for emergency preparedness and response. They make emergency planning and implementation decisions in both a common law and statutory context.

Most emergency management legislation provide no standards for emergency management practice. For example, Section 6(2) of the *Emergency Program Act* (RSBC 1996, c 111, as amended) [15] in British Columbia states, "a local authority must prepare or cause to be prepared local emergency plans respecting preparation for, response to and recovery from emergencies and disasters." What this piece of legislation and other legislation pertaining to emergency management fails to include is a defined standard which municipalities must meet for the preparation, response and recovery plans. This undefined obligation leaves the door open for municipalities to interpret the law as they see fit. 'Preparation for' an emergency can be understood as simple as having an evacuation plan adopted and ready if an emergency requires such action. 'Preparation for' does not impose particular steps of preparedness, i.e. certain action takes place throughout the province as dictated through legislation, such as updating flood plain maps. For example, Section 11 of Alberta's *Emergency Management Act* (RSA 2000, c E-6.8, as amended) [9] states,

> A local authority (a) shall, at all times, be responsible for the direction and control of the local authority's emergency response unless the Government assumes direction and control under Section 18; (b) shall prepare and approve emergency plans and programs.

Nothing in these provisions specifies what these plans and programs should consist of.

In some cases, provincial statutes fail to impose obligations on local governments to even have emergency management/measure plans by making it optional. Section 7(b) of Prince Edward Island's *Emergency Measures Act* (RSPEI 1988, c E-6.1, as amended) [13] states,

> The Minister may request municipalities to prepare emergency measures plans including mutual assistance programs, and to submit them to the Emergency Measures Organization for review for adequacy and integration with the provincial emergency plan.

Section 8 of the same legislation states, "Each municipality (a) may establish and maintain a municipal emergency measures organization by passage of a by-law; […] (d) pursuant to clause 7 (b), may prepare and approve emergency measures plans." There is no obligation on a municipality to have an emergency measures plan according to this legislation unless the Minister directs it to

adopt one. This means that should a foreseeable disaster/emergency be approaching, the province and municipal government may have no obligation to do anything, placing the responsibility to prepare, respond to and recover from an emergency on the public. This can be problematic because individual(s) and group (s) may not necessarily know or recognize the extent of their vulnerability to an impending emergency until it occurs. Without notice and awareness of the likely direct impacts of an emergency, the public's actions in the face of an emergency may be minimal and disjointed. There may be an understandable lack of appreciation of the risks of impending emergencies and what this means to these individuals and groups. Legislation that permits governments to choose whether or not to adopt an emergency measures plan may have benefits for government by reducing their costs and potential civil liability as will be seen below, but at the cost of exposing greater risk to the public and private property.

There are some Provinces and Territories in Canada that have mandated emergency management standards for municipal governments to abide by. Section 2.1 of Ontario's *Emergency Management and Civil Protection Act* (RSO 1990, c E.9, as amended) [12] requires municipal governments to adopt an emergency management program consisting of an emergency management plan, training programs and exercises for municipal employees and all personnel necessary in responding to and recovery from an emergency, public education on the risks to public safety and how to prepare for an emergency, and any other standards for emergency management programs set by the Solicitor General. These programs have to "identify and assess the various hazards and risks to public safety that could give rise to emergencies and identify the facilities and other elements of the infrastructure that are at risk of being affected by emergencies" (S. 2.1.3). In Nunavut, every municipal council is required to go beyond identifying and assessing the various hazards and risk to public safety in their own community. Municipal councils must also identify the risks to neighboring communities that may result from an emergency and do the following:

> In accordance with the policies, criteria and other measures established by the Minister: (i) prepare an emergency management program in respect of those risks; (ii) maintain, test and implement that program; and (iii) conduct exercises in relation to the program. (*Emergency Measures Act*, SNu 2007, c.10, as amended, S. 6.1(b)) [14].

Where this differs from Ontario's emergency management legislation is the requirement for testing of the emergency management program that is adopted by the municipality. By testing the program, the goal is to maximize efficiency to respond to an emergency. Roles and responsibilities are clearly established and understood so as to limit any confusion that could give rise to greater harm when swift and proper action are not taken.

Quebec's [6] (CQLR 2010, c S-2.3, as amended) is different than most other emergency management legislation throughout Canada in that not all municipalities are solely responsible for developing and implementing emergency management plans. According to this Act, regional authorities are to work with municipal governments to establish a civil protection plan which sets out objectives to reduce "major disaster vulnerability for their entire territory and the actions required to achieve those objectives" (S. 16). Municipalities, like Montréal, Québec City, Gatineau, Laval, Lévis, Longueuil and Mirabel, have been designated as regional authorities and, therefore, they must establish their own civil protection plans. Where Quebec's provincial legislation differs from most other emergency management legislation is a clear outline of what must be included in each civil protection plan, including: a summary of the area's physical, natural, human, social and economic characteristics; identify and assess the degree of vulnerability of major disaster risks; specify the source and consequences of a major disaster pertaining to those risks; identify the areas that could be affected; what existing safety measures are in place; the resources at the disposal of the regional authority; determine achievable safety objectives; specify actions and criteria for their implementation to achieve those objectives; and procedures to assess the actions taken pursuant to the civil protection plan and the degree to which those objectives have been completed (S. 16). Quebec's [6] (CQLR 2010, c S-2.3, as amended) is the most explicit in standardizing emergency management policy in a provincial statute in Canada. The Act specifies what is required in all emergency management plans and it requires biophysical and socio-economic assessments in order to properly identify and assess the exposure to disasters and individual vulnerability so that steps may be taken to reduce that vulnerability.

In general, there is a lack of specific standards across all provincial and territory legislation in Canada. Nine of ten Provinces and all three Territories in Canada require local authorities/municipal governments to develop or adopt an emergency program and plan, the contents of which are different from statute to statute. Most emergency management legislation requires that the plans adopted consist of procedures and proper training in response to a disaster. Beyond Quebec's commitment to reduce vulnerability to disasters, most other Provinces and Territories do not have explicit direction in their legislation as to what is to be considered and assessed in order to reduce risk or exposure to an emergency. For example, as indicated above, 'preparation for' does not necessarily mean disaster risk reduction strategies.

The lack of standardized assessment of and approach to emergency management exposes the public to greater risk in the event of an emergency; this is especially so where provincial legislation delegates responsibility to the local government in the absence of any mandatory specifics of what must be done. The very broad, general language of most legislative provisions in many ways undermines the stated objectives of the legislation. The result is an ad hoc, patchwork approach within the Provinces which has the potential to impair a coordinated response to an emergency and preventative steps. One may fairly ask whether the purpose of these legislative provisions is to promote proactive or reactive management to potential threats. If it is reactive management, the burden falls on individual members of the public to be prepared which is far from an ideal result.

3. Financial assistance and compensation opportunities

Where emergency management plans are required by municipal governments, current provincial programs that offer financial assistance or compensation opportunities often have many restrictions attached. For example, Section 30 of the [7] (BC Reg 124/95, 2009) of the *Emergency Program Act* (RSBC 1996, c 111, as amended) in British Columbia states that no assistance will be provided for structural repair, rebuilding or replacement if such structures are built in a designated flood plain unless such buildings were determined by the Minister or Canada Mortgage and Housing Corporation to be properly protected. This provision indirectly deters flood plain mapping by incentivizing local governments to avoid updating flood plain maps in order to be eligible for assistance while continuing development in areas that might be at risk.

In Raikes [36], a participant noted that the Columbian Basin Trust had the resources to conduct a hydrological assessment for 20 municipalities in Kootenay but such assessments were not undertaken because of the liability that would be attached to damages in future development. The inability to get compensation

for flooding arising from updated flood plain maps deterred municipal action. By not updating flood plain mapping, if a flood did occur, the municipality had the ability to access financial assistance and/or compensation programs. It was determined that not knowing which areas are most vulnerable to flooding was better for these cities because they could remain eligible for financial assistance and compensation all while continuing to develop in areas that may be vulnerable to such hydrological conditions. Section 30 of British Columbia's [7] (BC Reg 124/95, 2009) financially protects the municipality at the expense of their emergency management system.

In British Columbia, if conditions for financial assistance and compensation are met, the Minister still has an overriding discretion to decline claims if he/she determines that insufficient measures were taken before, during or after the disaster ([7], BC Reg 124/95, 2009, S. 31). In fact, the majority of provincial and territory emergency management legislation in Canada say that compensation for damage is discretionary. As a consequence, individual property owners must rely on adequate emergency preparedness by public entities but bear the financial risks if those efforts prove inadequate, defective or non-existent. This raises an important question as to whether or not it is appropriate for individuals and private entities to bear the risk of inadequate or non-existent emergency management planning given that the restrictions and conditions deterring emergency management practices are embedded in emergency management legislation that fails to outline a minimum standard of practice.

The term 'Act of God', which refers to natural events that cannot be prevented from occurring and results in damage, is not used by insurance companies in Canada. Typically, these types of natural events are described as perils and exclusions [39]. Under most policies, damage caused by fire, wind and hail is covered, but as it stands currently, Alberta is the only province in Canada where insurance for flooding caused by riverine, lake or creek overflow is covered [39]. Most insurance companies do not offer protection plans for high risk, large-scale events because of the potential massive indeterminate costs associated with such events. This includes floods caused by hurricane or sea-level rise.

The lack of available insurance to protect against property loss from flooding puts private land owners at the mercy of severe weather events which are likely to be both more frequent and more severe as the effects of climate change are realised. That risk is compounded where public authorities responsible for emergency planning and response are not required to, and do not have appropriate plans and resources to forecast and prepare for major events. Similarly, private land owners may well find themselves the unwitting and unwilling victims of decisions made by public authorities such as when water is diverted to protect one group to the peril of another. The availability and adequacy of government compensation and/or private law remedies is crucial in these circumstances.

4. Reduced government exposure

Although provincial and/or local governments have responsibility for emergency management, that does not equate to liability for damages that result from an emergency/disaster even when such damages occur as a result of their decisions. In discussing liability issues in environmental law, Muldoon et al. [30] highlight five major concerns including: the kinds of environmental damage that may result in liability; who should be responsible; establishing causal links between action or inaction and the resulting damage; identifying a reasonable threshold for damages that result in liability; and, the standard of care required by the responsible party in preventing damages. The above liability issues in environmental law arise equally in the context of emergency management to natural disasters. Courts in Canada have long recognized that governments enjoy special treatment when it comes to civil liability in tort. Governments operate for the greater good and, therefore, have to make difficult decisions at times. They have to make decisions in the interests of the community and not necessarily the individual. It is by this reasoning that courts have justified reduced exposure to civil liability, less than that of a private entity or individual (see [24,23,35].

In addition to the special treatment at common law, several Acts dealing with emergency management contain provisions that limit liability or exempt it altogether. In British Columbia, civil liability exposure is reduced to actions taken in bad faith or that are grossly negligent (*Emergency Program Act*, RSBC 1996, c 111, as amended, S.18) [15]. This is consistent with Section 21(a) and (b) of Newfoundland and Labrador's *Emergency Services Act* (SNL 2008, c E-9.1, as amended) [16],

> A person, including the minister, the CEO, the director, an employee, a volunteer and a person appointed under the authority of this Act is not liable for a loss, cost, expense, damage or injury to person or property which results from (a) the person, in good faith, doing or omitting to do an act that the person is appointed, authorized or required to do under this Act or the regulations, unless in doing or omitting to do the act, the person was grossly negligent; or (b) an act done or omitted to be done by one or more persons who were, under this Act or the regulations, appointed, authorized or required by the person to do an act, unless the appointment or authorizing was not done in good faith.[1]

In Nunavut, exposure remains only for actions taken in bad faith (Section 30, *Emergency Measures Act*, SNu 2007, c. 10) [14]. In Nova Scotia, Section 21 of the *Emergency Management Act* (SNS 1990, c 8, as amended) [11] states,

> The Minister, a mayor or warden, a municipality, the Department, a committee established pursuant to this Act or a member thereof, or any other person (a) is not liable for any damage arising out of any action taken pursuant to this Act or the regulations; and (b) is not subject to any proceedings by prohibition, certiorari, mandamus or injunction with respect to any action taken pursuant to this Act or the regulations.

By this statute, exposure to liability for government action is reduced to an absolute zero.

This is not to say that governments have no exposure to civil liability whatsoever; rather, it is less than that of a company or individual. According to the Supreme Court of Canada, municipalities have reduced exposure because "municipal legislative functions are different in kind and are not amenable to judicial constraint by the imposition of a private law duty of care" [24]. Governments' main exposure to civil liability lies in operational negligence as opposed to policy decisions to which no liability attaches. Henstra and McBean [18] and Roman [37] argue that the difference between the two is a legal rationalization. As McLachlin C.J. states in *R. v. Imperial Tobacco Canada Limited* (2011) [35]:

> "Core policy" government decisions protected from suit are decisions as to a course or principle of action that are based on public policy considerations, such as economic, social and political factors, provided they are neither irrational nor taken in

[1] The use of person can be defined as both a public entity and individual under both of British Columbia and Newfoundland and Labrador's Interpretation Act (RSBC 1996, c 238, as amended; RSNL 1990, c I-19, as amended) [26,27]. Therefore, both the public entity and its representatives may have reduced exposure in compliance with this provision.

> bad faith. This approach is consistent with the basic thrust of Canadian cases on the issue, although it emphasizes positive features of policy decisions, instead of relying exclusively on the quality of being "non-operational". (para. 90).

In the emergency management context, the choice to implement infrastructure in one area versus another or of one kind is a policy decision due to the economic, social and political factors involved in the decision-making process. By choosing to protect one area in the event of a large-scale emergency, such as a flood, to the detriment of another, the government likely cannot be found liable in negligence because of the character of the decision made.

The issue whether a particular course of action is operational or policy is not always cut and dried. The degree of policy needed in decision-making to determine whether or not such actions constitute a policy decision versus an operational one remains a case specific determination. As McLachlin C.J. further states,

> Difficult cases may be expected to arise from time to time where it is not easy to decide whether the degree of "policy" involved suffices for protection from negligence liability. […] A black and white test that will provide a ready and irrefutable answer for every decision in the infinite variety of decisions that government actors may produce is likely chimerical. (para. 90).

For the affected land owner, even recourse to the courts for a private law remedy is no sure thing. The law of negligence favors government actors.

Even where a plan is available to deal with an emergent situation, the failure to act has been held to be a policy decision. In Eliopoulis v. Ontario [8], George Eliopoulis contracted West Nile Virus in 2002. He was treated in a hospital but later died in 2003. His estate and family argued that Her Majesty the Queen in Right of Ontario, who had jurisdiction over Ontario hospitals, owed a private law duty of care that they failed to meet by having an emergency plan to prevent the outbreak in 2002 and choosing not to act. The Ontario Court of Appeal found that the choice not to act was a policy decision and, therefore, the government was not liable for any damages that resulted from that decision. For government to be exposed to civil liability in negligence a private duty of care must exist which is negated if the decision(s) made is determined to be a policy decision.

Despite these principles, it is important to note that government is not exempt from all liability. In R. v. Imperial Tobacco Canada [35], McLachlin C.J. wrote:

> There is a wide consensus that the law of negligence must account for the unique role of government agencies: Just v. British Columbia [23]. On the one hand, it is important for public authorities to be liable in general for their negligent conduct in light of the pervasive role that they play in all aspects of society. Exempting all government actions from liability would result in intolerable outcomes. On the other hand, "the Crown is not a person and must be free to govern and make true policy decisions without becoming subject to tort liability as a result of those decisions." ([23], 1239).

Canadian courts have found liability in negligence by governments where the conduct complained of clearly fell along the operational end of the spectrum. In those cases, the claimant must establish that a private law duty of care exists as established through a statutory scheme or interactions between the local authority and the plaintiff without interference from a statute [35,38]. In Just v. British Columbia [23] and Swinamer v. Nova Scotia [38], the Provinces' failure to properly maintain roads did not give rise to the policy decision protection.

In an emergency management system designed to be reactive, without explicit standards and, in many cases, without insurance products to protect person(s) or their property from damages, reduced government exposure to civil liability at common law further challenges the safety and security of the public. It puts the public at the mercy of government to subsidize losses that result from a disaster/emergency, which is itself a recipe for disaster especially when government compensation schemes are inadequate to the task.

5. Discussion

Reports by the Intergovernmental Panel on Climate Change (IPCC) and others have suggested that under various Representative Concentration Pathway (RCP) scenarios of greenhouse gas emissions, future climate conditions are expected to cause more frequent and intense weather related events [20,21]. As the IPCC reports, it "is very likely that heat waves will occur more often and last longer, and that extreme precipitation events will become more intense and frequent in many regions. The ocean will continue to warm and acidify, and global mean sea level to rise {2.2}" which will lead to more frequent and intense natural disasters [22].

In Canada, recent floods in the Calgary area (2015), lower Manitoba (2014), and Toronto and Alberta (2013) highlight some of the conditions that Canada's population and property have been subject to. In British Columbia, the Institute of Catastrophic Loss Reduction [19] has noted an increase in precipitation since the 1950s, despite recent drought-like conditions in the lower mainland. As the ICLR [19] explain,

> Since 1950 there has been a 20–30% increase in rainfall in coastal British Columbia, a 5-10% increase in the northern interior, and an annual change in rainfall of −0% to +25% in the southern interior. The large variation in these projections is due in part to the potential for large spatial variation that can occur in mountainous regions and interior plateaus. (50–51).

In fact, according to some researchers, community vulnerability, particularly coastal communities, to emergency events caused by climate change is increasing [20,21,32,33]. As Nicholls et al. [33] noted, Vancouver is one of the top 50 cities in the world vulnerable to sea-level rise. Current climate change models predict that exposure to flooding is expected to increase throughout parts of Canada [21]. As the ICLR [19] further states,

> A 5–10% increase in precipitation is expected over the period through 2050, with the largest increase occurring in coastal areas and the northern interior. Increased precipitation is expected across [British Columbia] in the winter, but rainfall should decrease in the summer, particularly in the southern interior. There is high confidence that there will be a 10–15% increase in intense rainfall events. (50–51).

Accordingly, under RCP scenario 8.5, sea-levels are expected to rise approximately 0.97 m by 2100 with glacial melting and thermal expansion being the dominant contributors to this rise [21]. This exposes many coastal communities to impending threats, some of which do not have measures in place to properly protect citizens and their property from these future conditions.

The lack of legislated standards for proactive/precautionary emergency management policy exposes the public to a host of emergencies that could be mitigated in whole or in part. As it stands in Canada, municipalities are principally responsible for emergency management within their communities. With predictions of more frequent and intense severe weather events in the future, a community's ability to withstand the impacts and recover from impacts from an event will be significantly challenged. The

burden of these events will fall squarely on the shoulders of individuals given the unavailability of insurance and inadequacies in government disaster assistance programs. The limits on government liability for damages for its conduct or lack of action puts private land owners at risk not only for the underlying event but also the actions taken by the municipality or Province as the case may be.

Like individual land owners, communities have a financial interest in preventative, pro-active emergency management. It reduces the risk to their own assets and, as seen above, it may improve access to aid from higher levels of government in the event of a disaster. It also fulfills their broader public responsibilities to their constituents. Unfortunately, there are many demands made on government and other priorities often supersede taking measures for a "what if" event. Leaving local governments to determine what planning they should do, how to implement it (or not) and what risks to address is fundamentally unfair to those who will bear the more substantial financial burdens of those choices, i.e. private land owners. Current legislation (Quebec excepted) fails to recognize and address this concern. A statutory regime which imposes detailed and more rigorous assessment, planning and emergency response protocols and practices will benefit not only communities but those most at financial risk. How prescriptive these standards should be, who should be responsible for funding more rigorously imposed emergency management, should emergency management to natural disasters be solely a government responsibility or should aspects of it be open to privatization, and what should the consequences be for authorities that do not comply with imposed standards, are questions that need to be addressed. Answering some of these questions is beyond the scope of this paper, but provide opportunities for further research.

The issue of the importance of recognizing risks and taking actions was highlighted in The Sendai Framework for Disaster Risk Reduction 2015–2030 which was adopted at the Third UN World Conference in Sendai, Japan, on March 18, 2015. One of the Priorities for action is: Strengthening disaster risk governance to manage disaster risk [43]. In consideration of financial risks, it is noted that "The transitional pathway from risk-blind to risk-sensitive investment practices must be carefully managed as to avoid penalizing companies, cities and countries that adopt a long-term, risk-informed perspective using innovative approaches" ([41], 1). Clear communication from government and businesses to the public as to what constitutes a 1:100 year or 1:200 year event could stimulate conversation on accessing a market in Canada that has largely been avoided due to the financial risks associated with emergencies; however, caution should be taken in privatizing aspects of emergency management. As Gilmour and Jensen [17] explain, privatizing aspects of emergency management that have shown to be related to inefficient government administration enables government to avoid legal responsibility and lead to a "wholesale loss of government accountability" (247). Research addressing questions posed in the previous paragraph are necessary in transitioning reactive management to proactive management through disaster risk reduction strategies while limiting the government's ability to divert accountability and protecting those most at financial risk.

6. Conclusion

Recognizing, planning for and implementing a coordinated approach to potential emergencies is best done by those with responsibility for the community's well-being. Individuals are unlikely to have the resources necessary for such actions. It is essential that those responsible for proactive/preventative planning for disasters work from a standard playbook, one which sets minimum safeguards for the public. This requires mandatory legislated standards to ensure these preventative activities occur to an acceptable level. In most of Canada, the current legislative regimes contain permissive provisions with little or no guidance or accountability. The result is a substantially increased risk to private land owners which will only increase as climate change occurs.

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