

**Disaster risk reduction in Canada:  
The potential for public/private partnership**

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Speaking notes. Check against delivery

I will speak today about how public/private partnerships may be used to build disaster resilience. This is a topic that I am very passionate about. I welcome this opportunity to speak with you. I hope that my remarks today will be helpful as everyone here works to champion disaster risk reduction.

Several years ago I was preparing for a meeting of the Intergovernmental Panel on Climate Change. My daughter was eight years old at the time. She proudly explained to her friend "Dad was travelling to a meeting of the United Nations because his job is to protect people from bad weather". I am proud that an eight year old can understand the work I do – the work that we do. Most jobs today cannot be understood by an eight year old. Our work – the job of championing and delivering disaster risk reduction – is something that can be understood and is admired by everyone. We have the best job in the world – protecting people from severe weather, flood and earthquakes.

While we work to promote disaster risk reduction we observe and experience loss events. This includes the tragic loss of life and property in other countries, like the recent events in Haiti and Japan. Disasters also continue in Canada, including the flooding this year in Richelieu and the wildfire in Slave Lake. Hazards are natural perils that will continue to strike, nevertheless I believe that we can prevent hazards from becoming disasters by investing in disaster risk reduction.

Let me share with you a story about Thomas Bata, the successful Canadian industrialist and proud shoe salesman. About 60 years ago he sent two salesmen to Africa. The first, a pessimist, returned to report "the situation is hopeless as no one here wears shoes." The second, an optimist, reported, "there is huge potential as no one is wearing shoes." According to the story, Mr. Bata fired the pessimistic salesman on the spot and invested extensively and successfully in Africa. Mr. Bata sold more than 14 billion pairs of shoes during his lifetime.

I am an optimist. I believe that we can significantly reduce the risk of fatalities, injuries and property damage due to natural hazards. I also believe that public/private partnerships should be part of a comprehensive Canada strategy to build disaster resilience. While there are few partnership in place at this time, I see many opportunities that could be realized in the future.

## A BRIEF HISTORY

I am excited that we are holding this national roundtable on disaster risk reduction. This is the third time during my lifetime that Canadian policy makers have considered implementing disaster risk reduction programs. I hope that this time we will be successful.

Almost 25 years ago the United Nations declared that the 1990s would be the international decade for disaster reduction. I was a member of the Canadian National Committee. Our responsibility was to describe disaster reduction activities underway in Canada. Also we assessed the reports from other countries looking for ideas that could be introduced here.

Early in the decade the Committee members spoke with pride about our Flood Damage Reduction Program. It was Canada's most successful disaster reduction program. During the 1990s Canadians were also confronted by a number of significant disasters, including the Saguenay flood, the Red River flood and the Great Ice Storm. These large loss events helped to secure political and public support for investments in disaster safety. I participated in national stakeholder consultations, and testified before parliamentary committees about the need for a national disaster mitigation strategy. By the end of the decade there was widespread support to launch a national strategy for disaster risk reduction.

Unfortunately that discussion failed to establish a national strategy for disaster risk reduction. In my opinion, it was overwhelmed by the intense political focus at the time on deficit reduction. In particular, the Government of Canada unilaterally withdrew from the Flood Damage Reduction Program. As a result, Canada's report to the UN International Decade for Disaster Reduction was brief as we lost what we intended to be the strongest element of our submission. Also when the large disasters struck the policy focus was on response and recovery, with almost no funds available for investments in mitigation or prevention.

A second round of discussion began ten years ago. The 9/11 terrorist attacks in New York revived the Canadian debate about a national strategy for disaster risk reduction. The provinces, territories, and eventually the federal government introduced legislative reforms so they would have the authority to address all hazards through a comprehensive framework that went now included the potential for action on disaster mitigation and prevention. Additional funds, resources and political attention were provided. Commitments were made in Hyogo that Canada would participate in international efforts to champion disaster risk reduction. And a National Disaster Mitigation Strategy was announced in 2008.

Unfortunately the efforts over the past decade have failed, in my opinion, to secure progress to reduce the risk of disaster damage in Canada. The new funds have been directed almost exclusively to reduce the risk of terrorist acts in Canada. There have been few funds available to reduce the risk of disaster due to natural hazards like

flood, severe weather and earthquakes. Moreover, the investment to reduce the risk of terrorism appears much greater, relative to the risk, than the modest investment that has been made to reduce the growing risk of loss from natural hazards. Furthermore, as I will explore in a moment, many of the new emergency management powers established over the past decade by the provincial, territorial and federal governments have not been implemented. Emergency management in Canada continues to focus primarily on preparedness and response.

This second round of discussion about establishing a national strategy for disaster risk reduction was overwhelmed, in my opinion, by the intense focus on terrorism combined in recent years with fiscal implications of the global financial crisis. Indeed over the past decade has been an alarming increase across Canada in urban flood damage, which now exceeds \$2 billion a year; the largest evacuations and damage ever from wildfire; unprecedented damage from severe wind events; and increasing concern about Canada's vulnerability to a large urban earthquake. I am pleased that we have not experienced a significant terrorist attack, but the vulnerability of Canadians to most natural hazards is rising despite the national discussion about disaster risk reduction.

I trust that discussions like those today are successful in bolstering the political will and appropriate resources to invest in disaster risk reduction over the next decade and beyond. The remainder of my remarks focus on the potential for progress, particularly through public/private partnerships. Indeed, despite the absence of progress to date I remain optimistic about the potential for a significant improvement in disaster safety for Canadians.

## OPPORTUNITIES FOR PARTNERSHIP

When governments in Canada are ready to move beyond emergency response and preparedness, and take action to invest in disaster risk reduction, they will find many willing partners. This will include traditional partners experienced in disaster response and preparedness, including the Canadian Red Cross and leaders from the business continuity community who have experience with risk reduction. They will also find themselves beginning to work with people involved in insurance and engineering; people less active in emergency response but leaders in risk management and risk reduction.

The insurance industry was a critical partner for governments across Canada in the successful efforts to prevent catastrophic urban fires, and should be an equally helpful partner to address current major risks like urban flooding, earthquakes, wildfire and severe wind. Moreover, insurance is the primary mechanism used to manage and finance the recovery of homeowners and businesses from most hazards in Canada. However, most Canadians are not well informed about the specific protection provided by insurance for these unusual events, likely including officials that may be responsible for guiding the rebuilding and recovery following a disaster.

It is important to partner with the insurance industry to better understand and manage the role of insurance and public relief in supporting the rebuilding and recovery after a disaster.

Most importantly, I believe that Canadians will soon see significant gains when we begin to seriously invest in disaster risk reduction. For example, rapid and large gains have been evident in other fields when Canadians began to invest in comprehensive risk reduction programs:

- The likelihood that drivers are involved in a vehicle collision is now less than one third of the rate per kilometer driven experienced thirty years ago.
- The likelihood of fire damage to homes is less than one third the peak rate recorded thirty years ago.
- The property crime rate in Canada is 40 percent of the peak rate recorded twenty years ago.

Significant progress can also be realized over a relatively short period of time when we decide that it is important to reduce the risk of loss from natural hazards.

I would like to use the time available today to speak with you about the potential for public/private partnerships to advance disaster risk reduction, including hazard assessment, land use planning, building codes, public awareness, capital infrastructure and recovery.

## HAZARD ASSESSMENT

Hazard assessment is essential to provide the foundation for public and private decision makers to take action to advance disaster risk reduction. Rigorous hazard assessment is a required element to secure the political and economic justification investments in disaster safety.

The poor quality of historic weather information, underinvestment in monitoring of weather and seismic events, and the potential of reductions in scarce research funds, staff and equipment currently available to assess the risk in Canada of natural hazards are serious threats to the potential for disaster risk reduction. Public/private partnerships could be formed to identify and champion increased information sharing and spending on the priority areas required to enhance current hazard research and monitoring efforts.

Our Institute has reviewed the hazard identification and risk assessment reports prepared by local emergency management officials in communities across the country. Current practices are sufficient, in my opinion, to support the traditional functions of emergency preparedness and response. For example, I believe that most assessments have identified the perils that have the greatest potential to

disrupt their communities. The current depth of analysis, however, is not sufficient to allow decision makers to make investments in disaster risk reduction. The floodway in Manitoba and the school seismic safety program in British Columbia are examples where significant additional hazard assessment was required to successfully justify public spending projects, analysis that goes well beyond the work conducted by local emergency managers.

I am pleased that the discussion over the next two days will include a review of actions underway to bring Hazus to Canada. This tool has been important for supporting progress in the United States to advance disaster risk reduction over the past 15 years. It would be very helpful if Hazus becomes available and is applied in Canada by local emergency management officials and other stakeholders. Partnership with the private sector has the potential to strengthen this effort.

## LAND USE PLANNING

Land use planning is the most powerful means to reduce or in some instances to eliminate the risk of damage from flooding. It can also be applied to reduce the risk of disaster from many other perils including coastal erosion, wildfires, earthquakes, landslides and avalanche. We cannot prevent hazards from striking but policy tools are in place to reduce the risk of fatalities and property damage by prohibiting development in areas of high risk and acquiring vulnerable property.

Unfortunately, flood damage is rising in many parts of Canada, particularly in urban areas. Disaster risk reduction through planning has always been difficult to implement, particular in a country like Canada with our growth in population and economic activity. Change in the climate and coastal erosion further increase the challenge.

Stakeholder partnerships have been formed in several countries that have been useful to public officials seeking to use manage development with a focus on public safety. For example, in the United Kingdom, the government has signed an agreement with the insurance industry outlining its commitment to prohibit development in zones of high flood risk, among other commitments. In return insurance companies will provide flood insurance to all property owners located outside of the agreed upon zone of high risk. This agreement allows the government to reduce its spending on disaster relief.

Roget Nicolet has been promoting disaster reduction in Canada for several decades. He was Chair of the commissions that assessed the tragic flood in the Saguenay and also Canada's most costly disaster, the Great Ice Storm. He is also the most qualified person from the disaster risk reduction community to be mayor of his community. At an ICLR conference he spoke about the challenges of promoting disaster safety when he was mayor of Austin.

## BUILDING CODES

Over the past two years there have been very large earthquakes in Haiti, Chile, New Zealand and Japan. Countries with strong building codes, like Chile, New Zealand and Japan, experienced little loss of life or earthquake damage due to the collapse of new buildings. In contrast, Haiti experienced catastrophic loss of life and property due to their extreme vulnerability, including uncontrolled construction practices. Canada has an effective building code process. It has contributed to a significant reduction in urban fire damage over several decades, and newer buildings in Canada appear capable of withstanding a significant earthquake.

Beyond seismic risks, disaster risk reduction has not been a priority for Canada's building codes. Scope remains to strengthen building codes in Canada with respect to the threat of severe wind, winter storms and perhaps wildfires, areas where damage costs have been rising across the country. The current policy direction provided to stakeholders working to enhance Canadian building codes emphasizes the importance of life safety and energy efficiency. Opportunities for cost effective improvement in disaster resilience have yet to be brought to the Canadian discussions although they are actively being addressed in the United States and other countries around the world. Builders, the construction industry, insurance industry and banks would be natural allies for the provincial, territorial and federal governments that would like to champion disaster resilience for the next generation of homes. Moreover, many of the emerging design and construction ideas can also be applied to existing homes.

Let me offer one example of the potential for partnership. Early last century, fire was the greatest risk of disaster for urban Canadians. In the early 1900s there were large fires in Toronto, Montreal, Ottawa and a number of other large communities. Eventually actions to reduce the risk of fire damage became part of Canada's fire and building codes. The specific safety actions were based on knowledge from builders, fire experts, insurance professionals and other stakeholders. Today there is a similar opportunity to focus on promoting disaster risk reduction by expanding the current building code process to involve a broad base of stakeholders.

## PUBLIC AWARENESS

Public awareness is a third area where private industry can work with governments to champion disaster resilience. The campaign to promote 72-hour preparedness has been running for several years now and is important. The small number of Canadians with a family emergency plan and a preparedness kit has increased somewhat, and I believe that the modest progress that we have experienced is due to the campaign. The coordination of and consistency in messaging across a broad number of stakeholders is important and it has been well managed. Nevertheless, I look forward to the day when local, provincial, territorial and federal agencies can

move beyond the important messages about preparedness to also address the broader mandate of disaster prevention and mitigation.

Private sector partners who are ready to work with governments seeking to promote risk reduction through public awareness include insurance companies. Insurers have been advising their policyholders about actions that can be taken to reduce the risk of damage from the four perils identified as priorities for the industry – urban flooding, earthquakes, severe wind and interface wildfires. This includes checklists homeowners can use to assess the resilience of their property, and recommendations for action. Each year during Emergency Preparedness Week, the insurance industry selects a home in Canada and retrofits it to enhance its resilience to local perils, inviting the media and other stakeholders to visit the home to understand the specific actions taken. Insurance is only one of several natural allies when governments are ready to move beyond the current important messages about preparedness.

## PUBLIC INFRASTRUCTURE

Extensive renewal of public infrastructure is urgently required over the next couple of decades and this is an important opportunity to enhance disaster resilience. Much of the economic losses experienced by communities due to a disaster are the result of infrastructure destroyed or overwhelmed by natural perils. In contrast, communities with resilient infrastructure soon enjoy a full recovery of employment and economic activity if a hazard strikes. The growing body of science provides detailed advice about best practices for new investments and for the maintenance of existing public infrastructure with respect to the risk of damage from earthquakes, flood or severe weather.

Political direction that disaster risk reduction is a priority is essential when decisions are made about infrastructure spending by local, provincial, territorial and the federal governments. Engineers and other private sector stakeholders are allies that will support governments willing to champion capital investments in disaster resilience. A commitment to disaster resilient public infrastructure will support economic development and lower private industry's expectations about the loss of business due to disruptions from disasters.

Canada's National Disaster Mitigation Strategy has no funds, but is linked to funds available through the Building Canada Fund and through the Disaster Financial Assistance Arrangement (DFAA). It would be useful if an assessment could be done to identify what spending under Build Canada and DFAA over the four years since the Strategy was announced have been used to invest in disaster mitigation. Moreover it would be useful if public and private sector stakeholders could come together to explore ideas for advancing investments in disaster safety.

## RECOVERY AND REBUILDING

Before I close I would like to briefly touch upon the important opportunity for partnership with respect to recovery and rebuilding after disaster strikes. Forty years ago the Disaster Financial Assistance Arrangement was created. There was an active discussion at that time about the role in recovery and rebuilding of various stakeholders. The insurance industry assumed responsibility for working with homeowners and businesses to manage Canada's disaster recovery from most perils. It was agreed that governments would be responsibility for managing the risk of disaster damage to public infrastructure and the risk of flood damage to homes.

This arrangement has been in place for the past forty years but the world has changed significantly over this time. Could private insurance become the primary source of funds to support the recovery and rebuilding of homes after flood or public infrastructure after disaster? This is done in other countries but has not been subject to a serious policy debate in Canada. Insurance presently doing a good job to cover the recovery and rebuilding if Canadian homeowners or businesses experience property damage due to tornadoes, hurricane winds, wildfire, hail, winter storms, lightning and many other hazards.

Urban fire was the most common peril confronting Canadians one hundred years ago, and through public/private partnership we have significantly reduced the risk of catastrophic fires. Flood and damage to public infrastructure is the most common peril confronting Canadians today. There is potential for public/private partnership to reduce the risk of flood and water damage if governments decide this a priority.

## CONCLUSIONS

Let me draw my comments to a conclusion. I am pleased that the provincial, territorial and federal governments are considering moving beyond the traditional focus on response to also champion disaster risk reduction through investments in prevention and mitigation. Many countries began taking action years ago and have considerable experience with disaster risk reduction. This experience will benefit Canadians when our governments are also willing to provide the people and funds to take action. Public/private partnerships are one tool that can be used to support disaster risk reduction through more rigorous hazard assessments, land use planning, building codes, public awareness and capital investments.

Canadians cannot stop earthquakes, floods or severe weather from striking, but we can prevent them from resulting in fatalities and property damage. I believe that disaster damage in Canada could be reduced to half the current level over the next 25 years if we invest in a comprehensive program of disaster risk reduction. We have reduced the risk of vehicle collisions, urban fire and property theft, now we should make similar reductions in the risk of loss due to earthquakes, flood and severe weather. Thank you.