



Canada

National progress report on the implementation of the Hyogo Framework for Action (2011-2013)

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Section 1: Outcomes 2011-2013

Strategic Outcome For Goal 1

Outcome Statement:

The Government of Canada has made continued progress to advance emergency management and disaster risk reduction since the last reporting cycle. Efforts continue to implement the Emergency Management Act (2007) and to further elaborate and strengthen the associated policy and programming framework across the four pillars of emergency management: prevention/mitigation; preparedness; response; and recovery. Significant progress has been achieved to implement the federal and national policies and strategies that were adopted during the last reporting period on a variety of issues: emergency management planning; chemical, biological, radiological, nuclear and explosives issues; interoperability; and critical infrastructure.

In recognition of the increasing frequency, severity and cost of disasters, the Government, in collaboration with provinces and territories, has undertaken efforts to shift the focus of emergency management towards a more pro-active prevention/mitigation approach. Discussions have been underway since 2011, on options for the development of a National Disaster Mitigation Program that would support initiatives to lessen the impact of natural disasters on vulnerable communities and reduce the costs associated with these events.

In tandem, there has also been increased focus on addressing risks at the local level and on building the capacity of individuals and communities to reduce their vulnerabilities and to better cope with events when they occur. This is a key objective of Canada's Platform for Disaster Risk Reduction, which has continued to grow since its inception in 2010, and is a key rationale behind the Government's recent commitment to develop a National Resilience Strategy for Canada.

Strategic Outcome For Goal 2

Outcome Statement:

Since 2011, progress has been made to strengthen institutional and governance mechanism on emergency management between the Federal/Provincial/Territorial governments, such as the Senior Officials Responsible for Emergency Management. At the federal level, a Deputy Minister level committee has been added to the Government of Canada's governance structure for emergency management, which serves to provide high level guidance, strategic direction and oversight on issues related to emergency management, disaster risk reduction and resilience.

A consultative group with representatives from first responders and community organizations, the Domestic Group on Emergency Management, has also been reinvigorated and provides the Government of Canada with a standing mechanism to engage these trusted partners on matters of mutual interest to the safety and resilience of Canadians.

Canada's Platform for Disaster Risk Reduction has also continued to strengthen its institutional base and capacities. Four working groups have been established under the Platform and are pursuing activities, largely targeted at the local level, that serve to increase the capacity of communities to build resilience. For the past two years, the Resilient Communities Working Group (RCWG) under the Platform has been promoting a Canadian version of the United Nations Resilient Cities campaign, and the RCWG has been working to develop a version of the campaign to target remote, rural and aboriginal communities, recognizing that a number of Canadians live in these types of communities.

Strategic Outcome For Goal 3

Outcome Statement:

Disaster prevention/mitigation is recognized as the most effective, sustainable approach to protecting lives, property, and the economy from natural disasters. Its importance and the need for both structural and non-structural mitigation are recognized in the National Disaster Mitigation Strategy, which was endorsed by federal, provincial, and territorial governments in 2008.

While mitigation is eligible under some Federal/Provincial/Territorial programming, there is an acknowledgement that further efforts are required to fully mainstream disaster prevention/mitigation and risk reduction at all levels. At the federal level, the Disaster Financial Assistance Arrangements were amended in 2008, to cover up to 15% of the cost of mitigation enhancements to infrastructure damaged during a natural disaster. More recently, the Government of Canada committed \$99.2 million in Budget 2012, to cost-shares eligible mitigation investments made by provinces and territories in anticipation of 2011 flooding.

As mitigation can lessen the impact of natural disasters on vulnerable communities and reduce the costs associated with these events, the Government has also committed to discussing with the provinces and territories the development of a longer-term National Disaster Mitigation Program. The program would be part of an integrated approach for strengthening national emergency management with a stronger emphasis on building sustainable community resilience, which is a complimentary approach that extends and integrates the work and investment across the four pillars of emergency management, including disaster mitigation.

Section 2: Strategic goals

Strategic Goal Area 1

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Strategic Goal Statement:

The Government of Canada continues to implement the Emergency Management Act, which supports policies, programs and strategies to ensure an emphasis on disaster prevention, mitigation and preparedness.

In 2011-2012, Public Safety Canada has been working on one-time funding to help Provinces with flood recovery. The program includes an emphasis on new disaster prevention measures and mitigation. Public Safety Canada is now also working on an integrated National Disaster Mitigation Strategy which will bring a holistic approach to mitigation and support for preventative structural and non-structural disaster reduction and preparedness.

In 2011, The Government of Canada released its first Progress Report on The Federal Sustainable Development Strategy. The Report outlines actions taken to implement the requirements under the Federal Sustainable Development Act (FSDA) and focuses on progress made on setting up the systems needed to implement the Act. The report is part of a long-term plan to improve the management approach geared to making environmental decision-making more transparent and accountable over time.

Internationally, Foreign Affairs, Trade and Development Canada (DFATD) and other partner departments/agencies continue to collaborate to raise awareness of disaster risk reduction (DRR) and its integration into sustainable development programming abroad.

The Canadian Red Cross provides technical expertise to Latin American and Caribbean countries interested in delving into their legal framework for disaster response and risk reduction. International Federation of Red Cross and Red Crescent Societies' International Disaster Response Law Guidelines provide a process to identify where current legal processes may be impacting disaster issues. The Canadian Red Cross has undertaken discussions with the American Red Cross and the Mexican Red Cross with regards to cross-border collaboration. In November 2012, the Canadian Red Cross supported the American Red Cross in the development of their Hurricane Sandy Recovery and Resilience program.

Strategic Goal Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Strategic Goal Statement:

The Government of Canada has been, and will continue to be, involved in supporting resilience capacity building; however most disasters are local in nature and therefore fall within the purview of municipalities and the provinces and territories. As the scale of disasters increase, the Government of Canada will become more involved.

Canada continues to work with the provinces and territories to expand and enhance institutional arrangements between jurisdictions, which includes clarifying the governance and responsibility delegation mechanisms enabling jurisdictions to strengthen their emergency management protocols. This is fundamental to Canada's multi-tiered approach to resilience.

Efforts continue to grow and strengthen the institutional capacity of Canada's Platform for Disaster Risk Reduction, which offers a forum to empower communities and stakeholders to become more resilient to disasters. The Resilient Communities Working Group has promoted the "Resilient Cities" campaign across Canada and is modifying the framework to be relevant to non-incorporated rural, remote and aboriginal communities.

Internationally, Canada promotes and supports disaster risk reduction (DRR) initiatives within existing multilateral and regional institutions such as the UN system, the Organization for American States, the ASEAN Regional Forum, the International Federation of the Red Cross and Red Crescent Societies, Asia-Pacific Economic Cooperation, and international financial institutions such as the World Bank. Canada supports activities that aim to enhance institutional capacity at all levels and is particularly focused on DRR activities in the Americas and Caribbean region although continues to support DRR initiatives in other regions such as Southeast Asia, where DFATD has integrated Disaster Risk Reduction into regional programming.

Internationally, the Canadian Red Cross supports sister National Societies to improve preparedness and response capacity but also to bring similar capacities to the communities themselves. The Canadian Red Cross supports National Society actions in Latin America and the Caribbean, Asia, and Africa and brings lessons learned to our Canadian context.

Strategic Goal Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Strategic Goal Statement:

The Government of Canada is adopting a stronger focus on disaster risk reduction (DRR) and prevention/mitigation as part of a broader shift to a more pro-active and risk based approach to managing disasters and their consequences. As of 2008, the Disaster Financial Assistance Arrangements, which supports recovery programming, have included provisions to make mitigation eligible for cost-sharing as part of post-disaster repairs.

In addition, Canada is exploring the development of a National Disaster Mitigation Program, which would further the inclusion of risk reduction and support the mainstreaming of DRR and prevention/mitigation.

Internationally, where possible, Canada supports and promotes global resilience building activities and approaches, including the integration of risk reduction approaches into emergency preparedness, response, and recovery programmes. Canada believes that comprehensive resilience building activities must address natural, economic, and conflict related shocks and stresses. DFATD's Strategic Policy and Performance Branch is identifying ways that it can strengthen its contribution to building resilience globally, including through DRR.

DFATD is currently managing a \$20 million program entitled "Caribbean Disaster Risk Management Program (CDRMP)", which is being implemented from 2007 to 2015. The goal of this program is to enhance regional capacity to mitigate, manage and coordinate gender and environmentally sensitive responses to disasters in the Caribbean region.

The Canadian Red Cross is an important DFATD partner in helping to build local level preparedness in disaster prone developing countries. With financial support from DFATD, the Canadian Red Cross is working with partner National Red Cross Societies to help build their disaster preparedness capacity, especially in contingency planning and early warning.

DFATD, through the Global Peace and Security Fund, has been providing support to risk reduction approaches through a series of stabilization and reconstruction projects in Haiti following the January 2010 earthquake in that country. These include:

First Aid Instructor Training in Haiti (FAITH), \$1.3 million, St. John Ambulance – This project has established a training Program comprised of Basic First Aid and Cardiopulmonary Resuscitation (CPR), which has reached over 4000 Haitian National Police (HNP) officers. A train-the-trainer model was pursued to ensure sustainability of Canada's intervention. Over 200 trainers were trained along with 20 instructor trainers. Additionally, nearly 200 senior and middle HNP management personnel received Emergency Preparedness awareness training courses to help better enable the HNP to respond to catastrophic events.

Haitian National Police (HNP) Early Recovery Equipment Project, \$4.8 million, Canadian Commercial Corporation – Canada has provided 100 patrol vehicles to the HNP to help better enable them to, among others, conduct patrols and respond to emergencies including natural disasters.

Strengthening local capacity-building and seismic risk prevention related to natural disasters, \$1million, Emergency Architects of Canada and Engineers without Borders, Quebec. This project has helped reinforce local capacities in appropriate seismic construction and disaster risk prevention by offering training to Government of Haiti engineers and architects who participate in building security and justice infrastructure.

Additionally, in its support for several projects to reconstruct critical security infrastructure in Haiti, Canada has worked to ensure the safety and durability of buildings, including with respect to international standards in anti-seismic resistance.

Canadian Red Cross preparedness, response and recovery programs seek to build or rebuild household and community resilience. The Canadian Red Cross has developed a beneficiary accountability framework that increases community participation in decision making and builds transparency on programming.

Section 3: Priority for action 1

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 1: Core indicator 1

National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is disaster risk taken into account in public investment and planning decisions?
Yes

National development plan	Yes
Sector strategies and plans	Yes
Climate change policy and strategy	Yes
Poverty reduction strategy papers	No
CCA/ UNDAF (Common Country Assessment/ UN Development Assistance Framework)	No
Civil defence policy, strategy and contingency planning	Yes

Have legislative and/or regulatory provisions been made for managing disaster risk? Yes

Description:

The Government of Canada engages in a range of activities aimed at building resilience and strengthening disaster risk reduction domestically and globally.

At the federal level, Public Safety Canada (PS) leads and coordinates the Government of

Canada's domestic disaster risk reduction efforts through legislation and policies, such as the Emergency Management Act (EMA), the Federal Policy for Emergency Management and the Federal Emergency Response Plan. In addition, PS's Emergency Management Planning Guide supports other federal institutions in meeting their responsibilities for disaster risk reduction planning under the EMA.

Nationally, federal, provincial and territorial governments in Canada share a coordinated approach to disaster risk reduction guided by An Emergency Management Framework for Canada, revised in 2011. Under this Framework, federal, provincial and territorial governments have established a number of domestic risk reduction strategies including the: National Disaster Mitigation Strategy; Communications Interoperability Strategy; Chemical, Biological, Radiological and Nuclear and Explosives Resilience Strategy; and the National Strategy for Critical Infrastructure.

Internationally, the Government of Canada supports a range of DRR, preparedness, response and recovery activities aimed at enhancing the capacity for disaster management.

Foreign Affairs, Trade and Development Canada (DFATD) has the lead responsibility for coordinating the Government of Canada's whole-of-government response to major natural disasters abroad. In this regard, Canada works closely with humanitarian organizations to further strengthen response capacities and to ensure that humanitarian needs are met across crises.

DFATD, through its development arm, has supported the Global Facility for Disaster Reduction and Recovery (GFDRR) of the World Bank (2008 – 2017) to provide technical assistance to high-risk developing countries to mainstream disaster risk reduction in their development policies, planning, and programming, particularly via Poverty Reduction Strategies.

In addition, DFATD has contributed \$25 million toward the capitalization of the Caribbean Catastrophe Risk Insurance Facility (CCRIF) for the period of 2007-2012. The CCRIF has been established to reduce financial vulnerability of participating countries to catastrophic natural disasters, by providing access to insurance.

DFATD has also recently contributed \$10 million to establish a 5-year Integrated Disaster Risk Management Fund that will be managed by the Asian Development Bank that aims to reduce the impact of disasters and preserve development gains in Southeast Asia. The Fund will support regional risk reduction initiatives proposed by Southeast Asian organizations and multiple countries working together.

In 2010, PS and DFATD responded to the Hyogo Framework for Action with the establishment of Canada's Platform for Disaster Risk Reduction, which serves as a multi-stakeholder mechanism to discuss national disaster risk reduction objectives.

Context & Constraints:

Emergency management in Canada is a shared responsibility, which relies on ongoing cooperation and communication between all levels of government. The federal, provincial and territorial governments have complementary roles in emergency management, and each jurisdiction has emergency management legislation articulating its responsibilities. All governments have adopted an all-hazards approach that addresses both natural and human-induced hazards and disasters.

All Canadians are implicated in strengthening disaster risk reduction and resilience domestically, including individual citizens, communities, municipalities, federal, provincial, and territorial governments, First Nations communities, first responders, the private sector, volunteer and non-government organizations, and academia. Establishing effective communication and mechanisms to share information and to collaborate are key components for building resiliency in Canada and enhancing our approach to disaster risk reduction.

Priority for action 1: Core indicator 2

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

What is the ratio of the budget allocation to risk reduction versus disaster relief and reconstruction?

	Risk reduction / prevention (%)	Relief and reconstruction (%)
National budget	N/A	N/A
Decentralised / sub-national budget	N/A	N/A
USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)	N/A	

Description:

The Government of Canada provides financial assistance to provinces/territories in the event of a large scale natural disaster through Disaster Financial Assistance Arrangements (DFAA), which are a mechanism for federal sharing of eligible response and recovery costs that would otherwise place an undue burden on a province/territory. In 2008 the Government of Canada introduced a DFAA provision whereby provinces/territories can request up to 15% of their eligible response and recovery costs, which could then be directed towards mitigative enhancements to infrastructure being rebuilt following an event.

Recognizing that disasters are increasing in magnitude and complexity and that mitigation can lessen the impact of natural disasters on vulnerable communities and reduce the

associated costs, the Government of Canada allocated \$99.2 million in Budget 2012 to share the cost of permanent flood mitigation investments made by provinces/territories affected by the 2011 spring floods. The Government of Canada is also exploring options for developing a National Disaster Mitigation Program.

Many other federal departments are also engaged in disaster risk reduction activities. For example, Environment Canada’s Environmental Emergencies Program is aimed at reducing the frequency and consequences of environmental emergencies involving unplanned, uncontrolled or accidental release of hazardous substances such as oils or chemicals. Through Infrastructure Canada, disaster mitigation infrastructure is eligible for federal cost-sharing.

The Canadian Red Cross undertook a joint pledge (4437) focused on disaster risk reduction with Public Safety Canada at the International Conference for the Movement of Red Cross and Red Crescent Societies. Commitments to on-going support of Canada’ Platform, the Voluntary Sector and Resilient Communities Working Group as well as to the Roundtable were undertaken by the Canadian Red Cross. The National Society is an active participant of Canada’s Platform for DRR and represents the voluntary sector in this forum.

Context & Constraints:

Although many federal, provincial and territorial governments are engaged in disaster risk reduction activities, specific funding to support such activities is not comprehensively tracked and aggregated at the national-level.

Priority for action 1: Core indicator 3

Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels

Level of Progress achieved: 5

Comprehensive achievement with sustained commitment and capacities at all levels

Key Questions and Means of Verification

Do local governments have legal responsibility and regular / systematic budget allocations for DRR? Yes

Legislation (Is there a specific legislation for local governments with a mandate for DRR?)	Yes
Regular budget allocations for DRR to local government	Yes
Estimated % of local budget allocation assigned to DRR	N/A

Description:

Legislation in Canada ensures that emergency management is a shared responsibility with jurisdictional roles clearly identified and outlined. Each provincial/territorial government has its own emergency management legislation articulating its roles and responsibilities, and those of municipalities and communities within their jurisdiction. However, there is recognition that Canadians and actors at all levels have a role to play.

All levels of government, including local governments, share an interest in reducing the risks posed by disasters. Through Canada's Platform for Disaster Risk Reduction, which involves bringing together stakeholders from many disciplines who share an interest in reducing the risks associated with disasters, Canada builds a sense of national, cross-sectional ownership of leadership in disaster risk reduction. The Resilient Communities Working Group, under Canada's Platform, further seeks to empower communities (including rural, remote, coastal and First Nations) in building resilience and understanding their role in disaster risk reduction.

Context & Constraints:

All levels of Canadian society undertake activities in emergency management. Federal, provincial and territorial governments all share the responsibility for emergency management in Canada, and partner with each other, other sectors and citizens in preparing for disasters.

Canada has a suite of legal and policy frameworks that establish guidelines and standards to ensure due diligence and accountability in relation to emergency management activities aligning responsibilities with their respective jurisdiction. At the national level, the federal government has a leadership role relating to emergency management responsibilities.

Priority for action 1: Core indicator 4

A national multi sectoral platform for disaster risk reduction is functioning.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are civil society organizations, national finance and planning institutions, key economic and development sector organizations represented in the national platform? Yes

Civil society members (specify absolute number)	25
National finance and planning institutions (specify absolute number)	6

Sectoral organisations (specify absolute number)	9
Private sector (specify absolute number)	20
Science and academic institutions (specify absolute number)	24
Women's organisations participating in national platform (specify absolute number)	0
Other (please specify)	44 (2 General Public; 18 Federal Departments and Agencies; 9 provinces and territories; 15 municipalities)

Where is the coordinating lead institution for disaster risk reduction located?

In the Prime Minister's/President's Office	No
In a central planning and/or coordinating unit	No
In a civil protection department	Yes
In an environmental planning ministry	No
In the Ministry of Finance	No
Other (Please specify)	

Description:

Disaster risk reduction, while a priority for the Government of Canada, is the responsibility of all sectors and all Canadians. Canada therefore supports and facilitates opportunities for a multi-stakeholder dialogue on disaster risk reduction, resilience and mitigation.

In June 2009, as part of its commitment to deliver on the Hyogo Framework of Action, Canada announced the establishment of Canada's Platform for Disaster Risk Reduction to raise awareness and enhance dialogue, provide strategic advice to policy makers, and enhance stakeholder collaboration on DRR activities.

When establishing Canada's Platform, the Government built on existing consultation mechanisms and relationships while creating new opportunities to maximize participation in disaster risk reduction activities. The Platform also complements and strengthens existing domestic disaster risk reduction initiatives.

Canada's Platform governance model comprises four interconnected components: an advisory committee; general membership; working groups; and a secretariat. The Advisory Committee is composed of ten representatives who represent federal institutions, provinces/territories, non-governmental organizations, first responders, the private sector and academia. Its role is to guide, set priorities, and support the development, implementation

and operation of Canada's Platform.

An Annual Roundtable on Disaster Risk Reduction is organized to bring together all the components of Canada's Platform. To date, Canada has held three annual Roundtables with the most recent taking place in October 2012. Participation has been growing since the inaugural Roundtable in 2010, reaching some 200 participants from all sectors of society at the most recent in 2012. The Roundtable has proven to be an important mechanism to consult a broad cross-section of stakeholders and individual citizens on disaster-related issues.

Context & Constraints:

Any new initiative that is national in scope takes time to develop. Over the past three years, the benefits of participating in Canada's Platform for Disaster Risk Reduction have been underscored by many sectors of society, which has resulted in a consecutive increase in participation year over year. Moving forward, Canada will continue to engage with all sectors to expand representation and to ensure that all Canadians have a voice in disaster risk reduction issues.

Section 4: Priority for action 2

Identify, assess and monitor disaster risks and enhance early warning

Priority for action 2: Core indicator 1

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is there a national multi-hazard risk assessment with a common methodology available to inform planning and development decisions? No

Multi-hazard risk assessment	No
% of schools and hospitals assessed	N/A
Schools not safe from disasters (specify absolute number)	N/A
Gender disaggregated vulnerability and capacity assessments	No
Agreed national standards for multi hazard risk assessments	No
Risk assessment held by a central repository (lead institution)	No
Common format for risk assessment	No
Risk assessment format customised by user	No
Is future/probable risk assessed?	No
Please list the sectors that have already used disaster risk assessment as a precondition for sectoral development planning and programming.	-- not complete --

Description:

The Government of Canada continues to advance a number of national initiatives that support and inform risk-based decision-making.

Public Safety Canada (PS) continues to implement a federal All-Hazards Risk Assessment (AHRA) initiative, which, when fully implemented, will provide a whole-of-government risk picture. Additionally, prototype risk assessments using HAZUS-Multi Hazards (MH) are being conducted through federal, provincial and municipal cooperation in British Columbia and the Ottawa-Montreal corridor. HAZUS-MH is a suite of tools for quantitative risk assessments, which can be used to assess a full range of hazards. These efforts are helping to refine the definition of needs for vulnerability information required as input for regional and national scale risk assessments. This initiative, along with other efforts, support effective emergency management planning and risk-based decision-making.

In addition, PS facilitates risk-based decision-making by federal institutions through the development of their Strategic Emergency Management Plans which are grounded in the AHRAs. These risk assessments inform evidence-based priority setting for institutions and contribute to the whole-of-government risk picture.

Canada's environmental regulations require that environmental emergency plans for regulated chemical substances address the full range of hazards that can reasonably be expected to occur at the site including natural disasters, severe weather conditions, etc. Information on the type and quantity of chemical substances is stored in a national database.

Provincial governments, such as Ontario, have introduced legislative provisions that require municipalities and ministries to assess their hazards and risks. In addition, the Province of Ontario has developed the 'Adapting to Climate Change: A Risk Assessment Guide for Ontario Municipalities' and Workbook (the Toolkit) for use by small to medium size municipalities in developing their adaptation planning.

Context & Constraints:

At the sub-national level, provincial/territorial governments are responsible for the development and implementation of risk assessments and have the authority to place this as a requirement on municipal governments within their jurisdictions. For example, the Province of Ontario requires provincial ministries and municipalities to assess their hazards and risks as part of their compliance to provincial emergency management legislation. To mitigate the challenges of decentralized responsibilities and accountabilities, Public Safety Canada has worked at improving governance and coordination mechanisms with sub-national entities to improve information sharing, discussions and collaboration on disaster risk reduction.

Priority for action 2: Core indicator 2

Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are disaster losses and hazards systematically reported, monitored and analyzed? Yes

Disaster loss databases exist and are regularly updated	Yes
Reports generated and used in planning by finance, planning and sectoral line ministries (from the disaster databases/ information systems)	No
Hazards are consistently monitored across localities and territorial boundaries	No

Description:

The Government of Canada recognizes the key role that effective knowledge and information management plays in informing risk-based decision-making.

The Canadian Disaster Database, maintained by Public Safety Canada, is a publically accessible web-based repository of information on natural and made-made disasters impacting Canadians since 1900. It contains over 1000 events; entries include a description of the event as well as the known number of fatalities or persons impacted and associated response and recovery costs. Originally developed to better inform public and government decision-making on disasters, the Database is also used for research, awareness raising and risk assessment. Data is collected through media scans, research, in consultation with partners and is verified via a network of experts.

The Government of Canada, with provincial/territorial partners, continues to invest in initiatives that support risk based decision making. The Multi-Agency Situational Awareness System (MASAS) was identified as a priority by federal and provincial interoperability partners and added as an item to the Communications Interoperability Strategy for Canada Action Plan in January 2011.

MASAS is an interconnected network of systems for exchanging location-based emergency incident information among multiple agencies using common standards, policies and interoperable technologies, providing an aggregation of sources of information relevant to emergency managers. Currently this aggregation includes alerts and information updates

from other emergency management organizations, including on weather, earthquakes and wildfires. MASAS is intended to support daily emergency response activities and allows emergency managers to spend less time searching for, compiling, making sense of and sharing information. Although MASAS can provide access to a large volume of information, it is structured and uses standard terminology allowing for the filtering and flagging of information. Presently, the MASAS user community reaches 350 organizations. Plans are being made for the transition from an operational pilot to operational capability.

Context & Constraints:

Further work is needed to expand and improve the comprehensive nature of the information contained in the Canadian Disaster Database (CDD). Entries do not typically include fulsome details on event costs, and tend to be limited to those costs covered by the Government of Canada. There are on-going efforts to partner with provinces/territories and the insurance industry to include their portion of the response and recovery costs with events that are eligible for inclusion in the CDD.

Initiatives such as MASAS build on an existing information sharing culture between the Federal Government and Provincial and Territorial partners. When situations arise, information is shared through established systems or through regular contact with partners through established vehicles (situation reports, emergency information notifications, teleconferences, etc.). The focus of efforts and investment is on building a more effective and efficient mechanism for information sharing and reducing legislative and regulatory barriers.

Priority for action 2: Core indicator 3

Early warning systems are in place for all major hazards, with outreach to communities.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do risk prone communities receive timely and understandable warnings of impending hazard events? Yes

Early warnings acted on effectively	Yes
Local level preparedness	Yes
Communication systems and protocols used and applied	Yes
Active involvement of media in early warning dissemination	Yes

Description:

The dissemination of timely and accurate information is a critical function of Canada's emergency management system. Canada continues efforts to improve the capability and capacity of systems, including the timeliness and accuracy of critical event information.

Public Safety Canada has been coordinating the development of a National Public Alerting System (NPAS) through a public-private partnership between federal/provincial/territorial governments and the broadcasting industry. The goal is to enable authorized government authorities to rapidly warn the public of imminent or unfolding dangers. NPAS will operate 24/7 and use radio, television and the internet; it complements existing public alerting systems and tools in a number of jurisdictions.

Environment Canada's Meteorological Service is investing in information services to enable Canadians to make better decisions to protect their health (e.g. alerting of heat events) and has distributed 15,700 Weather radios. This network broadcasts weather information, severe weather and tsunami alerts.

Natural Resources Canada has developed an automated notification of all Canadian earthquakes with magnitude above 4.0, which is now available via social media.

The Canadian Nuclear Safety Commission's Nuclear Power Plant licensees are required to provide financial assistance to municipalities/regions to install public alerting systems within a 10 km radius of their plants.

The Department of Fisheries and Oceans' Canadian Hydrographic Service (CHS) provides regular critical updates to its nautical charts and publications to warn mariners of potential navigation dangers. CHS also monitors tides and water levels and makes this information available for a variety of uses, including the detection and prediction of natural hazards.

The Province of Ontario's Emergency Public Warning System was re-launched in 2012. Red Alerts, Emergency Information Notifications, and Tornado Warnings. Information can be sent via Twitter, e-mail, and RSS (Rich Site Summary), and posted on Emergency Management Ontario's website. The system is administered in partnership with municipalities and media.

Context & Constraints:

Advances in technology and social media create opportunities to effect change in the mechanisms of information extrapolation and dissemination of information. As Canadians become more accustomed and familiar with the use of technology, expectations and demands for information increases. Responding to these expectations requires considerable investment of time, energy and resources.

Priority for action 2: Core indicator 4

National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Does your country participate in regional or sub-regional actions to reduce disaster risk? Yes

Establishing and maintaining regional hazard monitoring	No
Regional or sub-regional risk assessment	No
Regional or sub-regional early warning	No
Establishing and implementing protocols for transboundary information sharing	No
Establishing and resourcing regional and sub-regional strategies and frameworks	Yes

Description:

Canada's regional and sub-regional participation takes place in a whole-of-government context, where the Departments of Foreign Affairs, Trade and Development Canada, Public Safety Canada, Health Canada, Natural Resources Canada, Fisheries and Oceans all take part in multilateral fora to advance regional and national capacity building, sharing of information, and contributing actively to practical means and methods of all-hazards risk reduction, mainly through UN agencies, the Organization of American States (OAS) and NATO. For Example:

DFATD has integrated Disaster Risk Reduction into two regional programs: Caribbean and South East Asia, with the inclusion of DRR related activities in the Horn of Africa and across the Americas with the aim of enhancing institutional capacity at all levels.

Disaster risk reduction is one of the thematic priorities of the Southeast Asia program. A \$10 Million, 5-year project with the Asian Development Bank was recently launched to help stimulate the development of regional solutions in disaster risk reduction, climate change adaptation and disaster risk financing. Projects financed by this Fund are to be aligned with the regional policy framework, the ASEAN Agreement on Disaster Management and Emergency Response.

Programming in the Horn of Africa also includes DRR elements, as countries in this region

typically have a high degree of vulnerability to risk, due to a lack of capacity. In Ethiopia for example, food security and resilience to climate change is being addressed through the rehabilitation of degraded watersheds and the construction of community infrastructure.

Canada's emergency management system is based on shared responsibilities. The participation of a broad range of stakeholders fosters regional and sub-regional perspectives in disaster risk reduction activities undertaken.

Within their respective mandates, federal departments undertake activities that respond to regional and trans-boundary risks, often in collaboration with other levels of government. For example, the Public Health Agency of Canada (PHAC) uses risk assessments and border health measures to ensure the protection of the public from trans-boundary risks. In addition, the Canadian Nuclear Safety Commission has an agreement with its American counterpart to share information and technical expertise, with provinces having similar agreements in place with adjacent states and provinces.

The Province of Ontario considers events that take place externally, but may impact the province. In addition, the province participates with regional, national and international partners on trans-boundary risks. Adjacent municipalities in Ontario are encouraged to work jointly in developing adaptation to, and planning for, climate change to ensure uniform strategies within a watershed or common planning area.

The Canadian Red Cross undertakes an annual process of assessing risks, its capacities and its gaps as a basis for planning. Community information is utilized to inform the process and capacity is developed in coordination with local authorities. The Government of Canada is also supporting the Red Cross Movement in developing a simple tool to identify high risk communities in Caribbean countries.

Context & Constraints:

A number of federal departments participate in North Atlantic Treaty Organization (NATO) civil emergency planning activities and collaborate to provide necessary support and assistance to national authorities. Canada participates on a number of Civil Emergency Planning Boards, namely the NATO Transport Group; Public Health, Food and Water Group; Industrial Resources and Communications Service Group; and, the Civil Protection Group. In addition, Canada has numerous experts in a number of these groups that provide expert advice on an as required basis.

Canada and the United States also collaborate through regular interaction between operational centres and other forums, such as the Emergency Preparedness Consultative Committee for Transportation (EPCCT). The EPCCT promotes collaboration, information sharing and awareness between the transportation elements in all emergency activities with cross border implications.

Section 5: Priority for action 3

Use knowledge, innovation and education to build a culture of safety and resilience at all levels

Priority for action 3: Core indicator 1

Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is there a national disaster information system publicly available? Yes

Information is proactively disseminated	No
Established mechanisms for access / dissemination (internet, public information broadcasts - radio, TV,)	Yes
Information is provided with proactive guidance to manage disaster risk	No

Description:

Informed Canadians are safer Canadians, and therefore the Government of Canada, provincial and territorial partners and municipalities have numerous mechanisms in place to share information with the public.

Public Safety Canada provides Canadians with information and services relating to public safety from the Government of Canada and its partners. This is achieved through its website: www.publicsafety.gc.ca.

Public Safety Canada has a number of other programs and projects to ensure Canadians are informed of disaster events. This includes the Canadian Disaster Database, a publically accessible web-based repository of information about natural and man-made disasters that have taken place since 1900; and Canada's Multi-Agency Situational Awareness System, an interconnected system for exchanging location-based emergency incident information among multiple agencies.

Public Safety Canada's "Get Prepared" campaign includes a range of publications and hazard specific promotional materials, a dedicated website (www.GetPrepared.ca), social media, advertising, collaborative arrangements, exhibits and special events. Public Safety

Canada’s regional offices distribute emergency preparedness materials directly to regional stakeholders across Canada.

Health Canada, in collaboration with the Public Health Agency of Canada, has developed and disseminated public guidance documents to promote a culture of emergency preparedness for all Canadians with understandable advice on risk reduction in times of emergency (e.g.: “Preparing Your Family for an Emergency”).

Natural Resources Canada’s seismologists routinely respond to public and media enquiries, which increase following public perception or awareness of domestic or catastrophic international earthquakes.

To maintain situational awareness and coordinate its response and its communications in an integrated fashion, Fisheries and Oceans Canada relies on a network of coordination centres spread across the organization and the country. These centres include Joint Rescue Coordination Centres, Regional Operations Centres and Marine security Operations Centres.

Context & Constraints:

The contents of the Canadian Disaster Database undergo constant revision as new disasters occur and more information about past disasters becomes available. Cost and loss data in particular are subject to regular update since there are currently no standardized guidelines for collecting this type of information. This lack of standardized guidelines for data collection has posed challenges in comprehensively and consistently quantifying the aggregate costs of disasters, especially secondary socio-economic costs.

Priority for action 3: Core indicator 2

School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is DRR included in the national educational curriculum? Yes

Primary school curriculum	Yes
Secondary school curriculum	Yes
University curriculum	Yes
Professional DRR education programmes	Yes

Description:

Responsibility for primary and secondary school curriculum in Canada is the exclusive jurisdiction of provincial and territorial governments. There is no national-level initiative to develop and include lesson plans on natural hazards and disaster risk reduction; however, many school boards across Canada, particularly in disaster prone areas, include hazard specific content on their curriculum. This content is usually coordinated at the municipal school board level.

Natural Resources Canada maintains the Public Safety Geoscience Program, which makes available nationally classroom resources and lesson plans for middle and secondary school students to better understand the geographic scope and potential impact of geo-hazards (earthquakes, landslides and tsunamis) in Canada. The program also contributes to regionally specific exercises.

In January 2011, British Columbia (BC) held their first province-wide earthquake drill, “The Great British Columbia ShakeOut”; more than 10% of the population participated. This activity served as the catalyst for broad-based discussions regarding emergency preparedness. After the first BC ShakeOut drill, its organizers consulted with school districts, the Ministry of Education, and emergency management stakeholders from across the province and decided to align with ShakeOut drills in western North America. 2012 was the second year of “The Great British Columbia ShakeOut” and was the largest earthquake drill ever to take place in Canada.

Numerous private educational institutions have established emergency management and disaster risk reduction programs at the college, undergraduate and graduate levels in Canada. However, Canada still lacks dedicated doctoral level programs in emergency management or disaster risk reduction.

Public Safety Canada, through the Canada School of Public Service, is strengthening federal capacity in emergency management through the federal emergency management training program. This includes courses to federal institutions on the preparation of Strategic Emergency Management Plans which encompass the development of all-hazards risk assessments and treatment, as well as recovery strategies by federal institutions.

Context & Constraints:

Currently, there are no post-secondary scholarships funded by any level of government in Canada which directly support emergency management or disaster risk reduction academics. The Canadian chapter of the International Association of Emergency Managers offers one of the few privately funded emergency management or disaster risk reduction related scholarships in Canada.

Priority for action 3: Core indicator 3

Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is DRR included in the national scientific applied-research agenda/budget?
Yes

Research programmes and projects	Yes
Research outputs, products or studies are applied / used by public and private institutions	Yes
Studies on the economic costs and benefits of DRR	Yes

Description:

Canada is committed to research to support evidence-based decision making and the development of tools for risk assessment and disaster risk reduction. The federal government undertakes much of this research and development in collaboration with the private sector and academic organizations.

Environment Canada (EC) makes available scientifically sound information on the environmental, social, and economic risks and impacts caused by vulnerabilities to atmospheric change, variability, and extremes, and on the viability of adaptive responses. Scientists at EC are also responsible for meteorological research, which focuses on understanding, detecting and predicting severe weather, and the applications of precipitation physics to severe weather processes.

Defence Research and Development Canada hosts a joint endeavor, called the Centre for Security Science, with Public Safety Canada (PS) that provides science and technology support and services to address Canada's public safety and national security priorities. Work is undertaken through a collaborative model that invests in science and technology research, development, testing and evaluation of concepts and technologies. The Centre also applies scientific methodologies and expertise to support policy development, and emergency and security planning and operations.

PS supports additional natural hazards research and networking through the Canadian Risk and Hazards Network and the Science and Technology Working Group established under Canada's Platform for Disaster Risk Reduction.

Natural Resources Canada scientists provide expertise to render satellite data useful to the Government of Canada. The group encompasses experts in remote sensing technology, satellite signals, data methodologies, and the development of value-added image products, information, applications and services. In addition to transforming data from existing satellite sensors, scientists are involved in the development of next-generation satellite sensors, and the effective and immediate use of data from these sensors continues to modify HAZUS-Multi-Hazard for use in a Canadian context, with extension beyond earthquakes to other natural hazards.

Context & Constraints:

Canada is exploring the development of a National Disaster Mitigation Program and cutting-edge research will be essential to both the development and execution of the program. The program will build upon domestic and international disaster mitigation research initiatives, scientific developments, best practices, and lessons learned from disaster events, and will support the new and ongoing research to promote evidence based decision making for sustainable mitigation activities.

Priority for action 3: Core indicator 4

Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Do public education campaigns for risk-prone communities and local authorities include disaster risk? Yes

Public education campaigns for enhanced awareness of risk.	Yes
Training of local government	Yes
Disaster management (preparedness and emergency response)	Yes
Preventative risk management (risk and vulnerability)	No
Guidance for risk reduction	No
Availability of information on DRR practices at the community level	Yes

Description:

Public awareness is an important component of disaster risk reduction in Canada and there are on-going activities across the country to promote awareness and action by Canadians.

Public Safety Canada's (PS) "Get Prepared" marketing campaign encourages Canadians to be prepared to cope on their own for at least 72 hours after an emergency, enabling first responders to focus on those in urgent need. The campaign was designed in collaboration with a behavioural psychologist and risk communications experts. Campaign objectives were measured each year and compared against the 2005 baseline research, with successful results.

The Resilient Communities Working Group, established under Canada's Platform for Disaster Risk Reduction, coordinates the Canadian implementation of the United Nations International Strategy for Disaster Reduction's "Making Cities Resilient" campaign. To date, five Canadian municipalities have been officially certified as a United Nations' Resilience Cities, including North Vancouver, which was awarded the United Nations Sasakawa Award for Disaster Reduction in 2011.

PS and Defence Research and Development Canada's Centre for Security Science funded the development and testing of a draft resilience household survey, designed to fill the gaps in Canadian resilience-related data. This survey covers hazard/risk awareness, prior experience of a major disaster, and precautionary behaviours used to prevent or mitigate the effects of a disaster.

The Canadian Red Cross' Expect the Unexpected program is a series of free on-line educational programs for children addressing preparedness. The Canadian Red Cross' commitment to knowledge and awareness building is also evidenced by its annual conferences, including Community Resilience: Prepare, Respond, Rebuild, held in Atlantic Canada in the fall of 2012. Also in 2012, the Canadian Red Cross ran a successful preparedness social media campaign leading up to Hurricane Sandy and commissioned a "Social Media During Emergencies" poll to provide valuable insight into the expectations of Canadians during disasters.

Context & Constraints:

While public information on disaster risk reduction is available from a variety of sources in Canada, to date a single whole-of-community approach to emergency management and disaster risk recovery has not yet been formalized.

Section 6: Priority for action 4

Reduce the underlying risk factors

Priority for action 4: Core indicator 1

Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc) Yes

Protected areas legislation	Yes
Payment for ecosystem services (PES)	Yes
Integrated planning (for example coastal zone management)	Yes
Environmental impacts assessments (EIAs)	Yes
Climate change adaptation projects and programmes	Yes

Description:

Disaster risk reduction is integral to environmental policies and plans, including adaptation to climate change. Canada continues to protect the natural environment, promote adaptation and safeguard Canadians by mobilizing federal and provincial institutions to develop an integrated approach to climate adaptation.

Environment Canada (EC) has a number of programs that are aimed at protecting wildlife and areas of significance, including the 2011 Protected Areas Strategy and the Environmental Damages Fund. EC has also initiated a multi-year program to improve and extend the level of climate services it provides to Canadians, and is developing an approach to provide emergency management organizations and decision-makers with advanced warnings and expected impacts.

Environmental assessments under the Canadian Environmental Assessment Act 2012 help to minimize a project's potential impact on the environment before it begins and ensures that mitigation measures are applied once the project is initiated.

Transport Canada (TC) monitors vessels in Canadian waters through its National Aerial

Surveillance Program (NASP) to detect ship-source pollution. TC and EC enforce many domestic and international laws with evidence gathered by NASP crews.

Agriculture and Agri-Food Canada (AAFC) supports farmers through direct on-farm programming that identifies environmental risks and opportunities and promotes the continuous growth of the stewardship ethic within the agriculture and agri-food industry. AAFC supports farmers through agri-environmental risk assessment and planning; and through providing expertise, information and incentives to increase the adoption of sustainable agriculture practices.

The Department of Fisheries and Oceans Conservation and Protection program undertakes enforcement and works to facilitate public compliance with the Fisheries Act and supporting regulations relating to the conservation and sustainable use of Canada’s fisheries resources, the protection of species at risk, fish habitat and oceans.

Context & Constraints:

Given the vastness of Canada's landscape and the diversity of its climate zones, the impact of climate change on the health of Canadians as well as on Canada's environment and security is recognized as a complex issue. Key to addressing these challenges are to continue collaborative national efforts in research and science, and to continue moving forward with partners in implementing innovative strategies and plans such as the standing up of the Canadian High Arctic Research Centre.

Priority for action 4: Core indicator 2

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Do social safety nets exist to increase the resilience of risk prone households and communities? Yes

Crop and property insurance	Yes
Temporary employment guarantee schemes	No
Conditional and unconditional cash transfers	No
Micro finance (savings, loans, etc.)	No
Micro insurance	No

Description:

Vulnerable populations are often more at risk to disasters and can be less resilient in the face of change. Canada has a number of programs to ensure social development to assist these populations.

Human Resources and Social Development Canada administers a work sharing program designed to help employers and employees avoid layoffs during temporary reductions in the normal level of business activity, beyond the control of the employer. The measure provides income support to employees eligible for Employment Insurance benefits who work a temporarily reduced work week while their employer recovers.

The Canadian Pandemic Influenza Plan for the Health Sector, published by the Public Health Agency of Canada, serves to guide and assist in the preparation for and response to an influenza pandemic in all jurisdictions in Canada. In 2009 Health Canada released specific guidance to pandemic planners, at all levels of government, regarding influenza pandemic considerations in on-reserve First Nations communities.

AgriRecovery is a disaster relief framework and part of a suite of Business Risk Management programs. It provides for a coordinated process among federal, provincial and territorial governments to jointly respond to specified disasters (e.g., disease, weather) with quick, targeted assistance on a case-by-case basis. The objective of AgriRecovery is to provide Canadian producers who have been affected by disasters with assistance to resume business operations as quickly as possible, take actions to mitigate the impacts of a disaster, or if needed, facilitate transition into new production where long-term restrictions are placed on a property due to a disease or pest.

Violence often escalates in a post-disaster context as is evidenced by the IFRC and the Canadian Red Cross (CRC) report, Predictable, Preventable. CRC is working nationally and globally to raise awareness with National Societies and communities, working with adults and children on violence prevention.

Context & Constraints:

Through Budget 2012, the Government of Canada initiated changes to its federal employment insurance program, the effects of which have yet to be assessed as a mechanism to increase resiliency for underemployed, impoverished or risk prone households or communities, including those that are sustained by seasonal agricultural workers.

Priority for action 4: Core indicator 3

Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are the costs and benefits of DRR incorporated into the planning of public investment? Yes

National and sectoral public investment systems incorporating DRR.

Yes

Please provide specific examples: e.g. public infrastructure, transport and communication, economic and productive assets

Investments in retrofitting infrastructures including schools and hospitals

Yes

Description:

Economically, Canada has remained comparatively strong, despite the global down-turn. However the Government continues to develop policies and plans to reduce vulnerabilities of economic activities, especially in post-disaster recovery.

In 2012, Canada established a three-year contribution program totaling \$99.2 million in response to requests from provinces and territories for financial assistance toward their investments in permanent flood mitigation measures. Public Safety Canada's one-time contribution program aims to reimburse provinces and territories, on a 50-50 cost-shared basis, for eligible permanent flood mitigation measures taken by provinces and territories in 2011 that are not otherwise eligible under the Disaster Financial Assistance Arrangements. The payments will be made under a new class of contributions entitled, Financial Support to Provinces and Territories for 2011 Flood Mitigation Investments.

The Building Canada program, administered by Infrastructure Canada, seeks to create a more competitive and prosperous economy, and maintains a distinct investment category targeted to disaster mitigation. Building Canada investments are directed towards projects that will reduce the vulnerability of a community or public infrastructure to the potential impacts of extreme natural events, including climate change. Funding is limited to structural mitigation projects, but must be supported by appropriate non-structural mitigation measures. In addition, projects must be supported by appropriate risk assessments that demonstrate the need for the structural mitigation.

The National Strategy for Critical Infrastructure seeks to build a safer, more secure and more resilient Canada by advancing coherent and complementary actions among federal, provincial and territorial initiatives and among ten critical infrastructure sectors. Its associated Action Plan outlines steps that will be implemented to enhance the resiliency of Canada's critical infrastructure.

Context & Constraints:

It is vital to continue to protect communities and key infrastructure investments that are vulnerable to the impacts of natural and man-made events that have the potential for adverse impacts on businesses and local economies.

Priority for action 4: Core indicator 4

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Is there investment to reduce the risk of vulnerable urban settlements? Yes

Investment in drainage infrastructure in flood prone areas	No
Slope stabilisation in landslide prone areas	No
Training of masons on safe construction technology	No
Provision of safe land and housing for low income households and communities	No
Risk sensitive regulation in land zoning and private real estate development	No
Regulated provision of land titling	No

Description:

Canada has made achievements incorporating disaster risk reduction elements into the planned and built environment, coordinated at the federal level by national codes.

The 2010 National Building Code of Canada sets out technical provisions for the design and construction of new buildings. It also applies to the alteration, change of use and demolition

of existing buildings. The building code is complemented by the National Fire Code of Canada, and the National Plumbing Code of Canada.

These Codes incorporate close to 800 technical changes to address technological advances as well as health and safety concerns raised since 2005. They are an indispensable source of information for building, fire and plumbing officials as well as construction professionals and educators. While these Codes are non-binding, they help inform provincial and territorial legislation and enforcement. Provinces and territories may adopt, in whole or in part, these codes for mandatory use within their jurisdiction.

A nation-wide flood management program, including investment in drainage infrastructure in flood prone areas, does not exist. However, individual provinces and territories, and municipalities, invest in flood management measures, with periodic support from the Government of Canada. In response to significant spring flooding in 2011, the Government of Canada committed \$99.2 million to supporting provinces and territories that invested in flood mitigation measures in 2011.

To assist in planning and development, Natural Resources Canada has developed the first national scale tsunami hazard assessment map for Canada.

Since 2007, with the financial support of the Government of Quebec, eight slope stabilization projects, including four since 2011, have been conducted in urban areas in the Province of Quebec.

Context & Constraints:

Almost all of Canada's current infrastructure stock was designed using values derived from historical climate data, which does not necessarily reflect trends around climate variability, and has the potential to impact the safety of existing structures, increase the frequency of weather-related disasters, accelerate premature weathering of structures, change climatic design criteria for codes and standards and alter engineering practices.

In the face of increasing climate variability, a significant challenge will be developing adaptive solutions for Canada's existing infrastructure assets, estimated at more than \$5.5 trillion, as well as ensuring ongoing improvements to how structures are engineered, maintained and operated. While the national code documents do not directly address issues related to climate change mitigation, the climatic data that forms the basis for much of the design of buildings is continuously being updated in the National Building Code to ensure it is current.

Priority for action 4: Core indicator 5

Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Level of Progress achieved: 5

Comprehensive achievement with sustained commitment and capacities at all levels

Key Questions and Means of Verification

Do post-disaster programmes explicitly incorporate and budget for DRR for resilient recovery? Yes

% of recovery and reconstruction funds assigned to DRR	15
DRR capacities of local authorities for response and recovery strengthened	No
Risk assessment undertaken in pre- and post-disaster recovery and reconstruction planning	No
Measures taken to address gender based issues in recovery	No

Description:

The Government of Canada provides financial assistance to provincial and territorial governments through the Disaster Financial Assistance Arrangements (DFAA) for large natural disasters when response and recovery costs exceed what individual provinces or territories could reasonably be expected to bear on their own. The percentage of eligible costs reimbursed under the DFAA is determined by a pre-defined cost-sharing formula.

On January 1, 2008, the Government of Canada revised the DFAA Guidelines to include the sharing of cost for mitigative improvements to damaged infrastructure in order to better protect against future disasters. Under this provision, up to 15 percent of the estimated cost of repairs to damaged infrastructure to pre-disaster conditions can be allocated for mitigative enhancements. Examples of improvements to damaged public infrastructure include enlarging a culvert beside a road in a flood prone area, raising a bridge to prevent it from being washed away, or extending a dike.

Context & Constraints:

Disaster Financial Assistance Arrangements (DFAA) were established in 1970 to provide a consistent and equitable mechanism for federal sharing of provincial or territorial costs for natural disaster response and recovery where such costs would place an undue burden on a provincial or territorial economy. Provinces and territories design and administer their own recovery programs; the DFAA cost-share eligible provincial and territorial expenditures under

these programs. The DFAA do not provide assistance directly to individuals, businesses or municipalities.

Following a natural disaster, an affected province or territory may request federal financial assistance, if the eligible provincial or territorial expenditures appear to exceed the established threshold. Since the inception of the program in 1970, the DFAA has been applied to over 180 events with total federal payments to date of \$2.2 billion.

Priority for action 4: Core indicator 6

Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.

Level of Progress achieved: 4

Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Key Questions and Means of Verification

Are the impacts of disaster risk that are created by major development projects assessed? Yes

Are cost/benefits of disaster risk taken into account in the design and operation of major development projects? Yes

Impacts of disaster risk taken account in Environment Impact Assessment (EIA)	Yes
By national and sub-national authorities and institutions	Yes
By international development actors	No

Description:

As outlined in An Emergency Management Framework for Canada (2011), all jurisdictions in Canada have agreed to an all-hazards approach to emergency management. A key principle of the Framework is the importance of risk-based decision-making for effective emergency management. Risk assessments are fundamental for identifying the potential impacts of hazards and threats and informing evidence-based priority setting for investments in disaster risk reduction.

Under the Emergency Management Act (2007), Public Safety Canada is responsible for providing leadership and guidance to all federal institutions regarding their legislated requirements to identify risks related to their mandates and developing Strategic Emergency Management Plans and measures to address such risks which help form the whole-of-government risk picture. Policy tools and guidance have been developed, such as the Federal Policy for Emergency Management, the All-Hazards Risk Assessment and the

Emergency Management Planning Guide.

An environmental assessment under the Canadian Environmental Assessment Act (2012) must assess the environmental effects of malfunctions or accidents that may occur in connection with a project as well as assessing any changes to the project that may be caused by the environment.

Context & Constraints:

N/A

Section 7: Priority for action 5

Strengthen disaster preparedness for effective response at all levels

Priority for action 5: Core indicator 1

Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.

Level of Progress achieved: 5

Comprehensive achievement with sustained commitment and capacities at all levels

Key Questions and Means of Verification

Are there national programmes or policies for disaster preparedness, contingency planning and response? Yes

DRR incorporated in these programmes and policies	No
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The institutional mechanisms exist for the rapid mobilisation of resources in a disaster, utilising civil society and the private sector; in addition to public sector support.	No
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Are there national programmes or policies to make schools and health facilities safe in emergencies? Yes

Policies and programmes for school and hospital safety	No
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Training and mock drills in school and hospitals for emergency preparedness	No
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Are future disaster risks anticipated through scenario development and aligned preparedness planning? Yes

Potential risk scenarios are developed taking into account climate change projections	No
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Preparedness plans are regularly updated based on future risk scenarios	No
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Description:

Public Safety Canada is responsible for providing leadership, advice and guidance on the preparation, maintenance and testing of Strategic Emergency Management Plans (SEMPs) and Business Continuity Plans (BCPs) of federal institutions. This also includes evaluation of SEMPs and BCPs, which entails conducting assessments with the aim to ensure that all federal institutions have arrangements in place to address identified risks in their areas of responsibility and set out how they will assist the coordinated federal emergency response.

The Canadian Nuclear Safety Commission Action Plan draws on lessons learned from the Fukushima nuclear accident (Japan, 2011); it includes requiring licensees to systematically verify the effectiveness of, and supplement where appropriate, the existing plant design capabilities in beyond-design basis accident and severe accident conditions.

Context & Constraints:

A key challenge is securing dedicated, ongoing funding for disaster risk reduction initiatives, given the current fiscal environment in which Canada, and the rest of the world, is operating. Federal departments will continue to manage these initiatives with the resources allocated.

Priority for action 5: Core indicator 2

Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.

Level of Progress achieved: 5

Comprehensive achievement with sustained commitment and capacities at all levels

Key Questions and Means of Verification

Are the contingency plans, procedures and resources in place to deal with a major disaster? Yes

Plans and programmes are developed with gender sensitivities	No
Risk management/contingency plans for continued basic service delivery	Yes
Operations and communications centre	Yes
Search and rescue teams	Yes
Stockpiles of relief supplies	Yes
Shelters	Yes

Secure medical facilities	Yes
Dedicated provision for disabled and elderly in relief, shelter and emergency medical facilities	Yes
Businesses are a proactive partner in planning and delivery of response	No

Description:

The Federal Emergency Response Plan and the Federal Policy on Emergency Management include provisions for emergency management planning among federal institutions. Public Safety Canada (PS) is responsible for assisting federal departments in developing their business continuity plans, and for developing the plans to enable the continuity of constitutional government in the case of an emergency or catastrophic event in the National Capital Region. In addition, PS manages the National Exercise Program, which conducts regular operational exercises to enhance the National Emergency Response System and engages multiple federal institutions and provincial/territorial governments.

The Government Operations Centre (GOC) provides 24/7 situational awareness on events of interest in Canada and internationally with domestic implications, and undertake regular risk assessments. In that capacity, the GOC partners with other federal operations centres (e.g., the Health Portfolio Operations Centre for national co-ordination of a health-related emergency), provinces and territories, and international partners.

Provincial emergency response plans are in place in provinces and territories, which also undergo regular exercises. Provinces and territories have undertaken complementary emergency management initiatives (e.g.: the Province of Ontario developed a standardized approach to managing emergencies through its Incident Management System /and the Province of British Columbia developed a Federal Emergency Response Plan to support federal response efforts).

Canadian businesses and other private and public sector organizations are encouraged to develop strategic emergency management plans and business continuity plans to ensure that they are able to respond to, and recover from, disasters, and maintain the delivery of essential services to Canadians.

During maritime emergencies, the Canadian Hydrographic Service has the capacity to assist emergency response efforts by providing on-the-scene charting services to ensure safe routes in and out of disaster areas. As an aid to recovery efforts, the technology used by CHS is able to provide high-resolution digital views of the ocean environment.

Context & Constraints:

All levels of government should continue to ensure that post-disaster plans and activities are collaborative, coordinated and complementary in order to prevent duplication of efforts and gaps in Canada's emergency response suite.

Priority for action 5: Core indicator 3

Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Are financial arrangements in place to deal with major disaster? Yes

National contingency and calamity funds	Yes
The reduction of future risk is considered in the use of calamity funds	Yes
Insurance and reinsurance facilities	No
Catastrophe bonds and other capital market mechanisms	No

Description:

The Disaster Financial Assistance Arrangements (DFAA) are a key mechanism through which federal financial assistance is provided to provinces and territories (upon request), when the response and recovery costs exceed what provinces and territories would normally be expected to bear. Since the inception of the DFAA program in 1970, the Government of Canada has provided more than \$2.2 billion in post-disaster financial assistance to provinces and territories.

A number of provinces and territories also have their own respective disaster assistance programs to assist communities, small business, agricultural operations, and non-governmental organizations recover from natural disasters.

Agriculture and Agri-Food Canada, together with provincial and territorial governments, developed the Business Risk Management suite of programs with the overall aim of reducing producers' income losses resulting from factors beyond their control.

Under Agri-Invest, producers can use their accounts to cover small income losses or for investments to improve their farms' profitability. Agri-Stability stabilizes producers' incomes against large losses (relative to their historical income) due to circumstances beyond their control. Agri-Insurance provides farmers with affordable, predictable and timely protection against production and asset losses due to uncontrollable natural hazards.

The Agri-Recovery framework helps governments respond to regional disasters with programming that assists producers with the extraordinary costs associated with recovery activities. Since its implementation, federal and provincial governments have committed \$1.2

billion under 37 initiatives across the country. In 2011-12 alone, governments put in place nine initiatives totaling payments of \$358 million to over 38,000 producers across Canada.

Context & Constraints:

Though the federal government will continue to make post-disaster financial assistance available, as required, to provinces and territories through the Disaster Financial Assistance Arrangements (DFAA), the costs of disasters are rising. As such, the Government of Canada is exploring alternative measures, including pre-disaster mitigation, to complement the Disaster Financial Assistance Arrangements.

Priority for action 5: Core indicator 4

Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Level of Progress achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Key Questions and Means of Verification

Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur? No

Damage and loss assessment methodologies and capacities available	No
Post-disaster need assessment methodologies	No
Post-disaster needs assessment methodologies include guidance on gender aspects	No
Identified and trained human resources	No

Description:

Canada maintains mechanisms to exchange information between jurisdictions and across regions to ensure that response and recovery activities are coordinated and effective. As the leader in emergency management initiatives for the Government of Canada, Public Safety Canada manages post-event and post-exercise reviews. Federal departments contribute to these reviews on a regular basis.

Mechanisms for coordinating and sharing information during a disaster or hazard event include the Government Operation Centre, which monitors events of national significance on a 24/7 basis, and shares relevant information with other federal institutions, provincial and

territorial governments, and the private sector. Senior officials are therefore informed of events as they evolve, and bring forward issues that would require their engagement or decision.

Post-event, Public Safety Canada includes a Lessons Learned Program and provides the Capability Improvement Process templates for After Action Reports for exercises, and After Incident Report templates to assist institutions in post event reviews and on-going tracking of corrective actions and improvement initiatives.

Provinces also maintain their own operations centres. The Province of Ontario leads the coordination of emergency management information and the provincial After Action Report process. Ontario is also finalizing the development of an Emergency Management Enterprise System (EMES) to provide an electronic system for the collection, collation, evaluation and dissemination of emergency information.

Context & Constraints:

N/A

Section 8: Drivers of Progress

a) Multi-hazard integrated approach to disaster risk reduction and development

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?: Yes

If yes, are these being applied to development planning/ informing policy?: Yes

Description (Please provide evidence of where, how and who):

Canada adopts an all-hazards approach to emergency management in all jurisdictions. However, provincial, territorial and municipal governments across Canada are responsible for the development and implementation of their own risk assessment processes.

The evaluation of Strategic Emergency Management Plans (SEMP) provides the basis for an integrated risk management approach to disaster risk reduction across federal institutions.

Environment Canada is contributing to the Government of Canada's integrated approach to emergency management, including the development of Environment Canada's SEM which provides a comprehensive and coordinated approach to emergency management activities relevant to the department, the development of Emergency Support Functions to facilitate a flexible collaborative planning process geared towards whole-of-government responses to incidents; and the development of a federal All-Hazards Risk Assessment Framework that will produce a whole-of-government risk picture to support emergency management planning across federal government institutions.

The Geological Survey of Canada continues to develop and support HAZUS, a suite of tools for quantitative risk assessments for Canada, which can be used to assess a full range of hazards.

b) Gender perspectives on risk reduction and recovery adopted and institutionalized

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Is gender disaggregated data available and being applied to decision-making for risk reduction and recovery activities?: No

Do gender concerns inform policy and programme conceptualisation and implementation in a meaningful and appropriate way?: Yes

Description (Please provide evidence of where, how and who):

The Government of Canada continues to recognize the importance of Gender-Based Analysis across all departments and agencies. Public Safety Canada and other federal institutions engaged in emergency management and disaster risk reduction all have a responsibility for including Gender-Based Analysis.

Status of Women Canada continues to coordinate the role of Gender-Based Analysis domestically and seeks to ensure that it is applied across departments in a sustainable manner.

c) Capacities for risk reduction and recovery identified and strengthened

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do responsible designated agencies, institutions and offices at the local level have capacities for the enforcement of risk reduction regulations?: -- not complete --

Are local institutions, village committees, communities, volunteers or urban resident welfare associations properly trained for response?: -- not complete --

Description (Please provide evidence of where, how and who):

Canada's Platform for Disaster Risk Reduction is continuing to show momentum and the 2012 Roundtable, held on October 23, 2012 in Vancouver, British Columbia exceeded the target of 150 participants. This one-day free event focuses on building capacity across sectors and engages members in a discussion on how to reduce disaster risk in Canada.

Additionally, the Government of Canada committed to one-time funding in 2011 for flood mitigation, and has committed to discussing the development of a National Disaster Mitigation Program.

In the assessment of federal Strategic Emergency Management Plans, Public Safety Canada includes specific recommendations to enhance adherence to key emergency management principles and an all-hazards risk assessment approach and treatments for enhancing disaster risk reduction within and across federal institutions.

Through commitments made under the HFA, ongoing domestic emergency management initiatives and international development activities, Canada continues to strengthen the scope and depth of its DRR and resilience capacity building.

Recent examples of this capacity building include Canada's humanitarian responses to natural disasters worldwide, including severe floods in Pakistan, Thailand and much of Southeast Asia in 2011; the Great East Japan Earthquake and Tsunami of the same year; and extensive flooding and multiple tropical cyclones throughout the Caribbean and Southeast Asia in 2012 and 2013.

d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do programmes take account of socio-environmental risks to the most vulnerable and marginalised groups?: -- not complete --

Are appropriate social protection measures / safety nets that safeguard against their specific socioeconomic and political vulnerabilities being adequately implemented?: -- not complete --

Description (Please provide evidence of where, how and who):

A key focus of Canada's Platform for Disaster Risk Reduction is the role of communities, and to that end, the Resilient Communities Working Group seeks to develop and promote activities which recognize that local level action, and sensitivity to the broad spectrum of socio-economic groups, is important in disaster risk reduction and management. The Private Sector Working Group is also exploring the role of small- and medium-sized businesses in communities in recovery activities.

e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Are there identified means and sources to convey local and community experience or traditional knowledge in disaster risk reduction?: -- not complete --

Description (Please provide evidence of where, how and who):

The establishment of Canada's Platform for Disaster Risk Reduction serves as an example of the cross sectorial engagement of stakeholders and partners (civil society, private sector, academia, non-governmental organizations, and all levels of government) in support of disaster risk reduction. The Platform hosts an Annual National Roundtable to bring members together to learn from each other and identify priorities for supporting and promoting action for disaster risk reduction.

Additionally, Public Safety Canada works with partners and in the regions to develop capacity and help solidify emergency management networks. Public Safety Canada, while undertaking exercises, uses the opportunity to engage and partner with non-governmental actors and the private sector (e.g.: Canadian Electricity Association).

Public Safety Canada participates in regional activities like the "Great BC ShakeOut" Organizing Committee, which annually conducts a province-wide drill to promote earthquake preparedness and response. Public Safety Canada is also involved in the cross-border seismic-related Cascadia Region Earthquake Working Group, which brings together researchers, practitioners and citizens from northern California to British Columbia to help the region plan for earthquakes and become more resilient.

Public Safety Canada is involved with the Quebec regional committee for emergency telecommunications. Lead by Industry Canada and with federal, provincial and private sector partners, this committee meets twice a year and has developed an annual joint exercise to look at the needs and issues in telecommunications in emergency situations to ensure that they are coordinated.

Contextual Drivers of Progress

Levels of Reliance:

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Description (Please provide evidence of where, how and who):

Canada has made significant progress in supporting disaster risk reduction in Canada, including Canada's Platform for Disaster Risk Reduction, developing an all-hazards approach to emergency management, HAZUS, allocating broadband spectrum for the use of emergency responders (including police, firefighters and paramedics), identification of critical infrastructure, one-time flood mitigation funding, and is now exploring developing a National Disaster Mitigation Program.

These commitments are being complemented with on-going outreach and engagement strategies that are stakeholder-specific and ensure that Canadians understand their role in disaster risk reduction, as well as what the Government of Canada and provincial and territorial partners are doing to keep Canadians safe.

In developing these strategies and programs, the Government of Canada has adopted a multi-stakeholder approach and ensures that partners at all levels of government, as well as the private sector, non-governmental sector and academic sector, are engaged in program development.

Section 9: Future Outlook

Future Outlook Area 1

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Overall Challenges:

Since Canada has not recently experienced a major natural disaster that resulted in a large number of casualties, the perception of risks in the population in general may be biased towards a false sense of security. While the Government of Canada has a leadership role to play in developing strategies and policies to emphasize planning and programming to enable disaster prevention and risk reduction, outreach and engagement will need to be a priority to reinforce the understanding that a range of actors, including individual Canadians, have a role in preparedness and mitigation.

Challenges include the sustainability of community based approaches. Even small interventions require inputs and in small communities or those with limited national response capacity, external funding is necessary to maintain community and local government energies and engagement. The need for sufficient time to change attitudes and behaviours is not always understood in a sector which is used to quick fixes.

Another challenge is building the Canadian capacity in this discipline. Currently DRR remains largely an emergency management issue and there are fewer development and private sector considerations brought to the discussion.

Future Outlook Statement:

Prevention and mitigation, preparedness, response and recovery continue to be the core components of emergency management in Canada. Through the close cooperation of departments and agencies across the federal government, provincial and territorial governments and other stakeholders, Canada will continue making progress on incorporating disaster risk reduction and build linkages across the emergency management continuum in order to increase the resilience of communities, businesses and the country. This focus will be highlighted through Canada's Platform for Disaster Risk Reduction and is a key consideration in the development of a National Disaster Mitigation Program. The Government of Canada will complement this with continued implementation of legislation and policies like the Emergency Management Act, the Canadian Environmental Assessment Act, the National Disaster Mitigation Strategy and with the development of National Resilience Strategy for Canada.

On-going work in developing out-reach and engagement strategies will strengthen the message that, despite the existence of a robust legislative and policy framework aimed at helping to build capacity, all Canadians have a role in disaster risk reduction. Into the future,

public awareness activities will continue to be important for influencing the adoption of a more risk-based approach, in particular down to the community and individual level.

Canadians are watching and responding to disasters in similar contexts to theirs in Australia, New Zealand, Europe, the US and Japan. There is increasing awareness and interest in what this will look like when it hits in Canada. There will be opportunities to engage them in their own risk reduction actions and build awareness of their personal resilience responsibilities. Civil Society is well placed to be a conduit between communities and local, regional and national governments and should be recognized and encouraged in this role.

Future Outlook Area 2

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.

Overall Challenges:

Through collaboration and by leveraging capacities across all levels of government, non-governmental organizations, the private sector, academics, and the general public, Canada is seeking to increase awareness of emergency management, disaster risk reduction and the opportunities to better manage risk, and is developing tools to empower individuals and organizations to become more resilient.

Extensive efforts have been made to build and strengthen institutional mechanisms and capacities at the federal, provincial, territorial and municipal levels. However, the community-based approach to disaster risk reduction, whereby a range of actors, including individuals, have a role in building resilience and reducing disaster risks in their communities, remains relatively new. Further efforts are needed to encourage communities to develop institutional mechanisms and processes for strengthening disaster risk reduction, recognizing that they must be appropriate to their specific context.

Robust and comprehensive information and research on risks, hazards and vulnerabilities are key to achieving evidence-based investments in disaster risk reduction. Initiatives like the Canadian Disaster Database and the Multi-Agency Situation Awareness System are useful tools for collecting and sharing data on disaster events and emergencies. However, increased research, data collection and analysis are needed to support informed decision-making. Emergency management and disaster risk reduction are inter-disciplinary in nature and more cross-cutting research would serve to identify and explain important linkages between disciplines and how best to ensure complementarity of effort.

Future Outlook Statement:

Canada will continue to champion an all-hazards approach to disaster risk reduction, resilience and response. This approach enables even small communities to develop comprehensive plans, flexible enough to address a range of potential hazards. This approach will be integral to the National Disaster Mitigation Program which is under

development.

At the community level, the work of the Resilient Communities Working Group, under Canada's Platform for Disaster Risk Reduction, is raising awareness among Canadian communities about tools and mechanisms for building local resilience to risks and hazards. An important area of focus in this regard is providing context specific support for remote, rural, coastal, and First Nations communities whose environments and requirements are often quite different from urban communities. The efforts of the Resilient Communities Working Group are complemented by a virtual community of practice to facilitate information sharing between communities and practitioners.

The Government of Canada will continue efforts to improve the knowledge base of the disaster and emergency management field through initiatives like the Centre on Security Science, the Science and Technology Working Group, under Canada's Platform on Disaster Risk Reduction, and through partnership with the Canadian Risk and Hazards Network. Enhancements to existing resources and the development of addition tools are being explored to improve collection and dissemination of information on hazards, risks and vulnerabilities in order to support risk identity, awareness and assessment and to inform initiatives to reduce vulnerability.

Future Outlook Area 3

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Overall Challenges:

The frequency, severity and cost of natural disasters are increasing. Globally, 2011 was the most expensive year on record for natural disasters and the decade of 2000-2009 was Canada's most costly by far. In the face of rising response and recovery costs, incorporating disaster risk reduction into all phases of emergency management is becoming an increasing priority and is leading to a greater emphasis on community-based resilience.

Disaster risk reduction is among the most complex interdisciplinary fields implicating stakeholders from all levels of government, academia, the private sector, community partners, non-governmental organizations, Aboriginal communities and individual citizens. Further efforts to build and foster linkages between various disciplines and fields would improve the knowledge and capacity of individuals and organizations to take informed, comprehensive action in all phases of emergency management to reduce disaster risk.

Future Outlook Statement:

Canada's Platform for Disaster Risk Reduction is growing in terms of membership and scope, which provides opportunities to ensure risk reduction principles are part of the dialogue at the community level. In addition, the multi-stakeholder nature of Canada's Platform helps to support the building and strengthening of linkages and collaboration

between various actors to enhance integrated disaster risk reduction and resilience.

Future Outlook Area 4

The United Nations General Assembly Resolution 66/199, requested the development of a post-2015 framework for disaster risk reduction. A first outline will be developed for the next Global Platform in 2013, and a draft should be finalized towards the end of 2014 to be ready for consideration and adoption at the World Conference on Disaster Reduction in 2015.

Overall Challenges:

Canada would welcome a post-2015 Framework that:

- Is pragmatic and action-oriented; highlights the roles and responsibilities of all actors (not just Member States); and contributes to reducing the vulnerability of countries to all hazards, natural and otherwise;
- Maintains flexibility regarding domestic areas of responsibility;
- Reinforces that while DRR is a key development issue, it extends well beyond the development sphere and is equally relevant for developed countries;
- Focuses on a stronger promotion of prevention/mitigation and resilience;
- Strongly references the role of Public-Private Partnerships (PPP) in DRR and resilience – and also the role of the private sector in DRR, including the value of insurance for managing disaster risks and liabilities;
- Increases the focus on high risk populations, such as women, youth and marginalized groups;
- Calls for better tracking of disaster losses and DRR-related expenditures versus pay-offs (i.e. disaster costs);
- Reflects the need for all levels of government as well as civil society (private sector, NGOs, academics, citizens) to engage in DRR efforts and ensure resilience, including through improved integration and mainstreaming of DRR across diverse sectors, such as climate change adaptation and sustainability;
- Enhances regional cooperation on DRR and resilience building;
- Focuses on countering increasing levels of exposure to risk globally and rising economic consequences of disasters through an increased emphasis on existing and other innovative financial mechanisms, recognizing that DRR helps insulate and protect economies from shocks;
- Emphasizes the importance of performance measurement (not specific targets), the specifics of which should be determined by every individual country, as an important component of DRR activities and valuable tool for articulating related return on investment;
- Promotes the key role of public education and awareness-raising in promoting and institutionalizing DRR; and
- Reinforces the role of ALL actors, including individuals, communities, and governments, in managing disaster risk.

Section 10: Stakeholders

Organizations, departments, and institutions that have contributed to the report

Organization	Type	Focal Point
Aboriginal Affairs and Northern Development Canada	Gov	
Agriculture and Agri-Food Canada	Gov	
Canada Border Services Agency	Gov	
Canada Command	Gov	
Canada Revenue Agency	Gov	
Canadian Coast Guard	Gov	
Canadian Environmental Assessment Agency	Gov	
Canadian Food Inspection Agency	Gov	
Canadian International Development Agency	Gov	
Canadian Nuclear Safety Commission	Gov	
Canadian Security Intelligence Service	Gov	
Citizenship and Immigration Canada	Gov	
Communications Security Establishment	Gov	
Correctional Services Canada	Gov	
Environment Canada	Gov	
Fisheries and Oceans Canada	Gov	

Foreign Affairs and International Trade	Gov	
Government of Alberta	Gov	
Government of British Columbia	Gov	
Government of Manitoba	Gov	
Government of New Brunswick	Gov	
Government of Newfoundland & Labrador	Gov	
Government of Northwest Territories	Gov	
Government of Nova Scotia	Gov	
Government of Nunavut	Gov	
Government of Ontario	Gov	
Government of Prince Edward Island	Gov	
Government of Quebec	Gov	
Government of Saskatchewan	Gov	
Government of Yukon	Gov	
Health Canada	Gov	
Industry Canada	Gov	
Integrated Threat Assessment Centre	Gov	
Justice Canada	Gov	
National Defence	Gov	
National Search and Rescue Secretariat	Gov	
Natural Resources Canada	Gov	

Privy Council Office	Gov	
Provincial and Territorial Governments	Gov	
Public Health Agency of Canada	Gov	
Public Safety Canada	Gov	
Public Works and Government Services Canada	Gov	
Royal Canadian Mounted Police	Gov	
Service Canada	Gov	
Status of Women Canada	Gov	
Status of Women Canada	Gov	
Transport Canada	Gov	
Treasury Board of Canada	Gov	
Allstream	Private	
Canadian Electricity Association	Private	
IBM Canada	Private	
Insurance Bureau of Canada	Private	
Loblaws Canada	Private	
Swiss Re	Private	
TELUS	Private	
Institute for Catastrophic Loss Reduction	Acad & Research	
Toyal Roads University	Acad & Research	
Association of First Nations	NGO	

Canadian Centre for Emergency Preparedness	NGO	
Canadian Red Cross	NGO	
Mennonite Disaster Service	NGO	
Search and Rescue Volunteer Association of Canada	NGO	
St. John Ambulance	NGO	
The Salvation Army	NGO	
Canadian Association of Chiefs of Police	Networks & Others	
Canadian Association of Fire Chiefs	Networks & Others	
Canadian Risk and Hazards Network	Networks & Others	
Canadian Veterinary Medical Association	Networks & Others	
Canadian Volunteer Fire Services Association	Networks & Others	
Emergency Medical Services Chiefs of Canada	Networks & Others	
Federation of Canadian Municipalities	Networks & Others	
Paramedic Association of Canada	Networks & Others	