Assessment of the Canadian Voluntary Sector Capabilities and Capacity in Emergency Management

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Understanding and Enabling Volunteer Emergency Management in Canada

Component I, Deliverable 1

Assessment of the Canadian Voluntary Sector Capabilities and Capacity in Emergency Management

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Table of Contents

Abbreviations 5

Glossary of Terms 6

Executive Summary 7

1. Introduction 11

2. Context and Scope 13

2.1. Significance of the Study 13

2.2. Research Questions 14

3. Methodology 15

3.1. Methodology for the Survey 16

3.1.1. Capability List 16

3.1.2. Other Survey Components 18

3.1.3. Target organizations 19

3.1.4. Methodological limitations 20

3.2. Case studies: Purpose and Content 20

4. Volunteers in EM: A Literature Overview 21

5. Results 27

5.1. National VSOs in EM 28

5.1.1. Profile 28

5.1.2. Diverse Capabilities, Strong Capacity 29

5.1.3. The DM Cycle: A Focus on Response 32

5.1.4. Initiating Authority 36

5.1.5. Training and Certification 38

5.1.6. Capacity Development: New Locations and Recruitment 40

5.2. Provincial/Local VSOs in EM and Fire Departments 42

5.2.1. A diversity of Profiles, Capabilities and Capacities 42

5.2.2. The DM Cycle: Preparedness and Response 43

5.2.3. Initiating Authority: Local Governance 44

5.2.4. Training and Certification 44

6. Discussion and Recommendations 45

6.1. Capabilities 45

6.2. Capacity: Quantity, Quality, Retention 46
6.3. Initiating Authority and Governance 47
6.4. The DM Cycle and Whole-of-Society Resilience 48
7. Conclusion 50
8. References 52
9. Appendices 57
Appendix 1: Survey 57
Appendix 2: Capability List Design 77
Appendix 3: List of Capabilities 78
Appendix 4: National VSOs in EM, Capabilities and Capacity by Province and Territory 82
Appendix 5: Provincial and Local VSOs in EM, Fire Departments 90
Appendix 6: Case Studies 95
Case Study 1: Arrival and Welcoming of Syrian Refugees in Halifax: The Role of Volunteers 95
Case Study 2: Alberta Wildfires: Edmonton and the 50,000 Evacuees 100
Case Study 3: Lac-Mégantic Rail Disaster: Mobilizing Volunteers from Response to Recovery 110
Case Study 4: A General Search and Rescue Operation in Alberta 117
Case Study 5: Daylu Dena Flooding (June 2012): A Remote Community Responding 122

Abbreviations

Authority Having Jurisdiction	AHJ
Collaborative 5	C5
Community-Based Organization	CBO
Canadian Red Cross	CRC
Defence Research and Development Canada	DRDC
Department of Community Services	DCS
Disaster Financial Assistance Arrangements	DFAA
Disaster Management	DM
Disaster Risk Reduction	DRR
Emergency Management	EM
Emergency Social Services	ESS
EMO: Emergency Management Office	EMO
Faith-Based Organization	FBO
Federal Emergency Management Agency	FEMA
Federal, Provincial and Territorial	F, P/T
Forward Looking Infrared Radiometer	FLIR
Government-Assisted Refugee	GAR
Immigration Services Association of Nova Scotia	ISANS
Immigration, Refugees and Citizenship Canada	IRCC
International Federation of Red Cross and Red Crescent	IFRC
Non-Governmental Organization	NGO
Nova Scotia Education	NS Education
Nova Scotia Office of Immigration	NSOI
Office for the Coordination of Humanitarian Affairs	OCHA
Privately-Sponsored Refugee	PSR
Regional Municipality of Wood Buffalo	RMWB
Return On Investment	ROI
Royal Canadian Mounted Police	RCMP
Search and Rescue	SAR
Senior Officials Responsible for Emergency Management	SOREM
Transport Nova Scotia	Transport NS
United Nations International Strategy for Disaster Reduction	UNISDR
Voluntary Sector Organization	VSO
Voluntary Sector Working Group	VSWG

Glossary of Terms

Affiliated volunteer	The term “affiliated volunteer” refers to an individual who is part of an organization’s roster of volunteers. Affiliated volunteers are pre-identified and may have received orientation or training prior to any disaster response mobilization.
Civil Society	The term Civil Society refers to the wide array of non-governmental and not-for-profit organizations that have a presence in public life, expressing the interests and values of their members or others, based on ethical, cultural, political, scientific, religious or philanthropic considerations. Civil Society Organizations (CSOs) therefore refer to a wide of array of organizations: community groups, non-governmental organizations (NGOs), labor unions, indigenous groups, charitable organizations, faith-based organizations, professional associations, and foundations [1].
Emergent volunteer	The term “emergent volunteer” refers to volunteers who self-organize in groups and self-deploy without belonging to the structure of any previously established organization. This phenomenon is called “emergence”.
Spontaneous volunteer	The terms “spontaneous”, “episodic” or “walk-in” volunteer refer to people offering their assistance to Voluntary Organizations without having been previously affiliated, prepared, or trained by those organizations.
Surge capacity	A system's ability to rapidly expand beyond normal services to meet the increased demand for qualified personnel, and services in the event of large-scale emergencies or disasters [2]
Voluntary Sector	The Voluntary Sector consists of non-governmental and not-for-profit organizations that work towards delivering tangible benefits to society. The sector is also known as the “third sector” and is part of Civil Society.

Executive Summary

This report has been prepared by the Canadian Red Cross, acting on behalf of the Voluntary Sector Working Group (VSWG). It presents a first-ever sectoral analysis of the capabilities and capacity of the major national Voluntary Sector Organizations (VSOs) operating in Emergency Management (EM) in Canada.

The report is one of the components under the project *Understanding and Enabling Volunteer Emergency Management in Canada* led by the Canadian Safety and Security Program and managed through Defence Research and Development Canada's (DRDC) Centre for Security Science. The objective of the project is to expand knowledge on current volunteer EM capabilities in Canada and to develop an evidence-based model for improved volunteer integration into the Canadian EM.

In a context of rising disaster frequency, intensity and cost, there is recognition of the operational and economic value of trained volunteers in responding to emergencies and fostering community resilience. Thus, in pursuing its "whole-of-society" approach, its alignment to the Sendai Framework for DRR, and to support the long-term viability of the federal, provincial/territorial emergency management systems, governments are increasingly looking at ways to further leverage volunteers and the Voluntary Sector's capacities to reduce the strains of disasters on governmental fiscal capacity and as a way to foster community resilience.

More particularly, this report strives to answer the question: *What EM related capabilities and capacity do volunteers of organized/formal Voluntary Sector Organizations (VSOs) currently have in Canada?* To do so, this study combines, in addition to a literature review, results from a survey and insight provided by case studies.

As a first task, VSOs operating in EM, in collaboration with DRDC, developed a capability list to characterize the competencies of the voluntary sector and volunteers in Canada. This list represents both methodological advances and a significant contribution of knowledge to the field of EM in Canada. A number of information was then collected against this list of capabilities including organizations' capacity, lines of authority, activity along the disaster management cycle, training and certification, and plans for capacity development.

The study also identified and reached out to the primary national, provincial and local VSOs operating in EM in Canada. In particular, it provides comprehensive and representative information of the capabilities and capacity available through National VSOs in EM. It also offers indicative information through data and case studies on the capabilities and capacity of Provincial and Local VSOs in EM and, more broadly, of CSOs engaged at the community level in Canada. Moreover, the case studies illustrate the diversity of emergency situations occurring in Canada and the dynamics unfolding in EM between Voluntary and non-profit organizations, governmental agencies and the public.

Together the assessment and the case studies led to the following observations related to volunteer EM capabilities and capacity, and the state of resiliency in Canada:

Capabilities:

Taken as a whole, the Canadian Voluntary Sector in EM demonstrates a comprehensive array of expertise related to EM. Based on the list of twenty-five EM capabilities, National VSOs in EM have capacity in nearly all capabilities (22 capabilities out of 25). The exception to this observation is in two capabilities: Mitigation (structural and non-structural) and Critical Infrastructure Resilience and Restoration.

> Recommendation: the following two capabilities need to be further investigated to confirm an actual gap: 1) Mitigation (structural and non-structural); 2) Critical Infrastructure Resilience and Restoration

National VSOs in EM generally operate in distinct capability niches with a degree of segmentation. While this indicates limited overlap of capabilities, it does not inform as to the level of integration and complementarity among VSOs in EM.

> Recommendation: assess the current systems of relationships and governance, and identify possible needs and opportunities for greater collaboration and integration among VSOs in EM.

Capacity:

Volunteerism in EM seems reflective of the vibrancy of volunteerism in Canada as we can observe large numbers of volunteers by capability and prevalent surge capacity. The case studies also confirm that the Canadian Voluntary Sector in EM has robust systems and standards for the recruitment, engagement. Training of affiliated volunteers is also very well established in Canadian Voluntary Organizations in EM with training material that is reviewed regularly and often.

Certification spans only a few capabilities and National VSOs in EM report plans to expand to new locations and recruit new affiliated volunteers. Within the scope of this study, it cannot be inferred if this recruitment is to meet geographic expansion needs, invest in additional capabilities, or off-set volunteer attrition. However training and certification ensure that volunteers are available not only in quantity but also in quality. Volunteer retention is essential to guarantee that investments made in recruiting, training and certifying volunteers are amortized.

> Recommendations: a) Evaluate if more volunteer certification is needed in Canada; b) Conduct business cases on the ROI of training and certifying volunteers in relation to EM needs and retention rates.

Authority and Governance:

Canadian VSOs in EM and CSOs are self-directed and display a great sense of leadership. The government is also the privileged partner for VSOs in EM. However, case studies highlight that although pre-established arrangements and agreements represent a significant advantage, VSOs in EM operate under a variety of local and provincial conditions in terms of relationships and agreements with governments and, sometimes, in the absence of any pre-established arrangements. The Sendai Framework however calls for "strengthening disaster risk governance to manage risk".

> Recommendation: systematically review existing arrangements and coordination mechanisms at the Federal, Provincial/Territorial and local level to promote a stronger recognition and integration of VSOs in EM in governance structures including legislation, F, P/T frameworks, policies, guiding principles, and EM systems.

The DM Cycle and Resilience:

The study highlights the systemic predisposition to engage the Voluntary Sector in EM in the response phase in a context where, as informed by national and international frameworks, engagement of the Voluntary Sector is increasingly considered more broadly to meet DRR goals. The current emphasis on response of National VSOs in EM would therefore appear to be misaligned with the whole-of-society resilience approach that is currently guiding the Canadian EM policy landscape.

> Recommendations: a) assess how VSOs in EM can expand their activities and engage volunteers to phases of the DM cycle other than the response phase; b) increase the understanding of the role, contribution and processes by which local CSOs are fostering whole-of-society resilience; c) strengthen linkages and integration between VSOs in EM and CSOs that operate in risk prevention and reduction at the community level in an ongoing manner.

In light of these findings and recognition of opportunities to advance governance systems that better recognize and integrate VSOs in EM, this study leads to the clear articulation of two important questions. How to enable the Voluntary Sector in EM so that it can take a greater stance in preparedness and mitigation? How can volunteers and the Voluntary Sector be adequately taken into account in the upcoming Canadian plan of action for the implementation of the Sendai Framework?

Adding capabilities geared towards preparedness and mitigation to strengthen preparedness and mitigation is certainly an option. However, the present study indicates that VSOs in EM think about all of their existing capabilities in relation to all of the phases of the DM cycle. The current emphasis on response highlights that critical investments in widespread risk reduction and, as recommended by the Sendai framework, adequate governance structure, are indispensable in enabling the mobilization of volunteer capabilities and capacity towards the full DM cycle and are a prerequisite for Canada to achieve its whole-of-society agenda.

Therefore, in addition to the development of EM capabilities, it is ultimately the strengthening of governance structures that more clearly define roles and responsibilities that will be critical in the years ahead to ensure the effective integration of Voluntary-based resources in the Canadian EM system and whole-of-society resilience approach.

1. Introduction

This report has been prepared by the Canadian Red Cross, acting on behalf of the Voluntary Sector Working Group (VSWG)[1]. It presents a first-ever sectoral analysis of the capabilities and capacity of the major national Voluntary Sector Organizations (VSOs) operating in Emergency Management (EM) in Canada. The report also offers an assessment of which phases of the Disaster Management[2] (DM) cycle VSOs are active in; which lines of authority VSOs follow; if training and certification are in place; and, if VSOs have plans for capacity development. This assessment should be understood as an initial diagnosis of the Canadian VSOs in EM to help identify salient strengths, dynamics and possible gaps.

The report is one of the components under the project *Understanding and Enabling Volunteer Emergency Management in Canada* led by the Canadian Safety and Security Program[3] and managed through Defence Research and Development Canada's Centre for Security Science.

As per the project's Charter, the objective of the project *Understanding and Enabling Volunteer Emergency Management in Canada* is to expand knowledge on current volunteer EM capabilities in Canada and to develop an evidence-based model for improved volunteer integration into the Canadian EM system, focused on technical capabilities in support of existing organizations (e.g. first responders, civil society, NGOs etc.). Federal, Provincial and Territorial (F,P/T) governments have already indicated their intention to develop a new national policy position on these issues to foster communities in Canada that are prepared for, and resilient to, emergency events and violent extremism through risk and evidence-based assessments, new technological capabilities, and sociological analyses. This research endeavour also stems from the dual recognition of the rising frequency, intensity and costs of disasters, coupled with the vibrant participation of Canadian citizens, either directly or through established voluntary and non-profit organizations, to help respond to natural and humanitarian emergencies.

Therefore, this first sectoral assessment of Canadian VSOs in EM will feed into the pool of information gathered through the project's other research and trials components to support the development of EM policy in Canada.

More particularly, this report strives to answer the question: *What EM related capabilities and capacity do volunteers of organized/formal Voluntary Sector Organizations (VSOs) currently have in Canada?* To do so, this study combines results from a survey and insight provided by case studies to understand both current assets and also dynamics related to the mobilization of VSOs and volunteers in EM throughout the DM cycle. It is expected that this research will deliver a strategic image of the sector to inform the development of evidence-based policy and/or programs whereby Canada can further enable and improve volunteer integration into EM system.

[1] The VSWG is part of the Canada's Platform for Disaster Risk Reduction (DRR)
[2] Both Emergency Management (EM) and Disaster Management (DM) use the same four components: Prevention & Mitigation, Preparedness, Response, and Recovery
[3] The project code is: CSSP-2015-TI-2155 Version 1.0 30-July-2015

The report starts by presenting the context and scope (Section 2) and methodology (Section 3) of this study. Section 4 gives an overview of academic, government and gray literature. It is followed by Section 5 which presents results from the survey on VSOs in EM and Section 6 which showcases five case studies for the purpose of illustrating the work of VSOs in EM in various contexts. The report concludes with a discussion and recommendations (Section7).

2. Context and Scope

2.1. Significance of the Study

This section combines information from the Charter document for the project *Understanding and Enabling Volunteer Emergency Management in Canada*[4] and additional research to present the context and rationale for conducting this study.

Addressing rising disaster risk and costs

Disasters are increasing in frequency and severity in Canada. Disasters costs in Canada are estimated to rise due to climate change, economic development, aging infrastructure and higher concentration of people and assets in exposed areas [3]. The Institute for Catastrophic Loss Reduction warns that large-loss years exceeding $1 billion in insurable costs are going to become the "new normal" in Canada [4].

Federal, provincial, and territorial (F, P/T) governments bear a significant share of disaster costs through financial disaster assistance programs. The current demand on these programs far exceeds available funding. Public Safety Canada identified in its 2013-2014 Report on Plans and Strategy that the rising cost of disasters is one of the major risks that will increase federal liability under the Disaster Financial Assistance Arrangements (DFAA) program [5].

Canada and the Sendai Framework

To support the long-term viability of the F, P/T emergency management system, and to foster the resilience of Canadian communities, Canada has consistently aligned its strategy to UNISDR's international frameworks for disaster risk reduction. In its 2015-2016 Report on Plans and Priorities, Public Safety Canada reiterated its alignment to the Hyogo Framework[5] and, consequently, its commitment to modernize Canada's approach to emergency management by strengthening whole-of-society resilience [6]. On March 2016, Canada adopted the Sendai Framework for Disaster Risk Reduction which includes as its Guiding Principles the *"Engagement from all of society"* and that "*special attention should be paid to the improvement of organized voluntary work of citizens"* [7, p. 13].

The Commitment of Canadian Leaders in EM

It is in this context that F, P/T and local governments are increasingly looking at ways to further leverage volunteers and the Voluntary Sector's capacities to reduce the strains of disasters on governmental fiscal capacity and as a way to foster community resilience.

[4] Ibid
[5] UNISDR's Hyogo Framework preceded the Sendai Framework

In the fall of 2014, SOREM had already committed to explore the improved integration of volunteers into the Canadian EM system, as a potential solution to Canada's escalating disaster risk exposure. This approach represents significant potential value for money for F, P/T governments and also directly supports the development of community resilience by training and empowering communities to take a more proactive role in risk reduction and EM. As such, SOREM established an F, P/T "TIGER" team to explore domestic and international models where volunteers are engaged in the EM system. The mandate of the TIGER Team is to aggressively pursue research and trials of volunteer integration models and to return to F, P/T Ministers Responsible for Emergency Management in two years with recommended options on a way forward.

2.2. Research Questions

The present research study seeks to investigate and provide some answers to the following questions:

- What EM related capabilities do volunteers of organized/formal Voluntary Sector Organizations (VSOs) currently have in Canada?
- What is the distribution by province of formal and surge volunteer capacity?
- At what phase(s) of the DM cycle can capabilities be activated?
- Along what lines of authorities are capabilities activated?
- Do VSOs have training and certification in place?
- What are VSOs planning in terms of capability and capacity development?

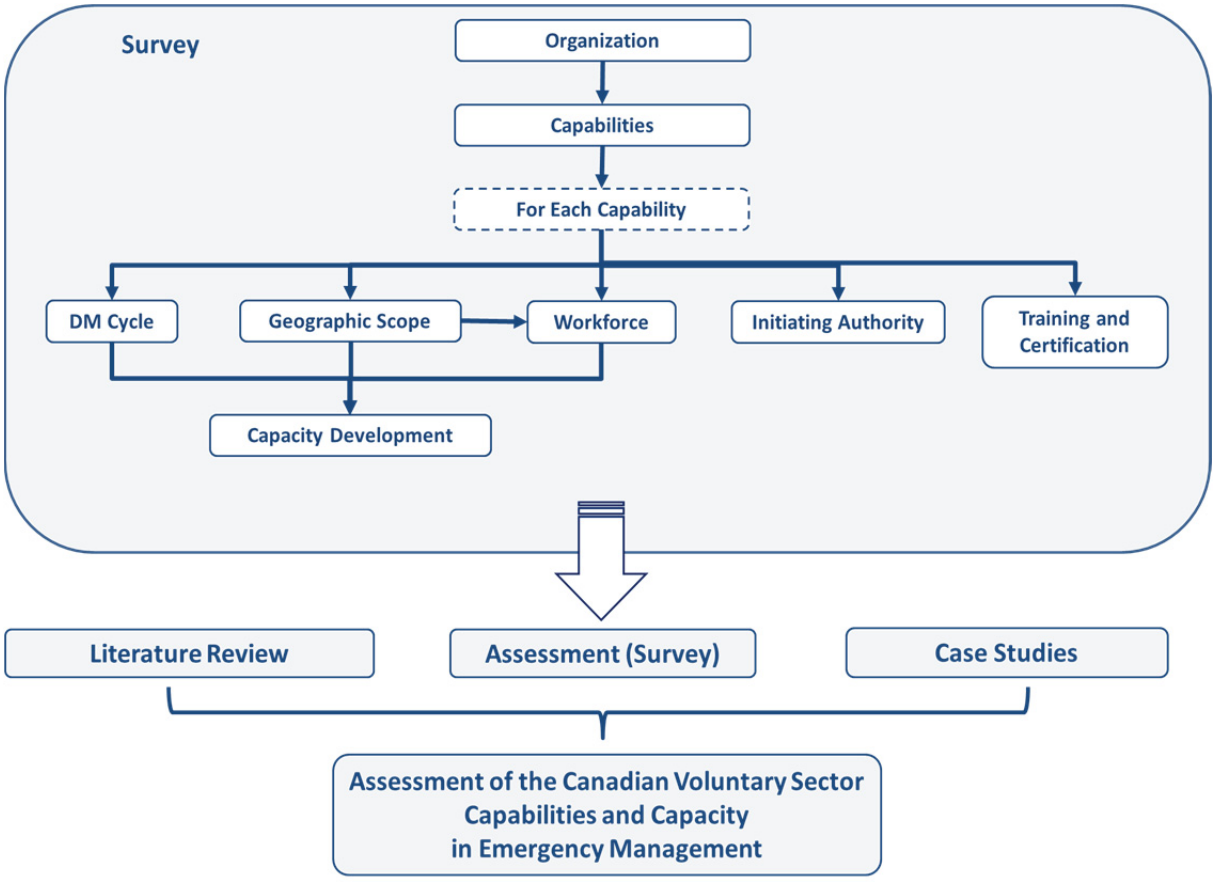
And:

- What are some concrete examples illustrating the capability, capacity and dynamics of Voluntary Organizations and volunteers in EM?

3. Methodology

This research combines multiple approaches including a literature review, a survey and concrete examples through five case studies (Figure 1). The literature review consisted of an examination of academic, government and gray literature. This section of the report presents the methodology developed for the assessment of VSOs' capabilities and capacity through a survey and the elements sought for the case studies.

Figure 1 - Overview of Study 1: Assessment of Voluntary Sector Capacity in EM



3.1. Methodology for the Survey

The objective of the survey was to collect information according to EM capability. Thus, the survey was primarily administered online as it required a dynamic design that would enable respondents to cycle through the same questions for each selected capability. The full survey is available in document form in Appendix 1.

3.1.1. Capability List

One of the first tasks of this research was the design and development of a list of capabilities relevant to the Canadian Voluntary Sector operating in EM (Table 1). This list of EM capabilities will represent a significant contribution to future research and subsequent studies.

Multiple lists were examined, in particular the 32 Core Capabilities list[6] of the United States Federal Emergency Management Agency (FEMA), the twelve Emergency Social Services (ESS) typically provided in Canada[7], and the eleven Clusters of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). FEMA's list was deemed too oriented on capabilities related to national defence and first responders, whereas ESS and OCHA's Cluster list did not provide sufficient level of detail. A mapping was therefore done to align these capabilities which resulted in the list of 25 capabilities used in this research.

Definitions were developed using, as much as possible, Canadian sources, and in particular the Emergency Management Vocabulary developed by the Government of Canada's Translation Bureau, in partnership with Public Safety Canada. Whenever a definition was not available, sources from Canadian Voluntary Organizations were prioritized over any other sources.

The capability list was developed in close collaboration with members of the Voluntary Sector Working Group and Defence Research and Development Canada. The mapping of the three main source lists and the final list of capabilities with definitions and their sources is available in Appendix 2: Capability List Design.

It was recommended to respondents to select a maximum of ten capabilities although they had the possibility to select more if they chose to do so.

[6] https://www.fema.gov/core-capabilities
[7] http://www.essna.ca/pages/about_ess/

Table 1 – List of Capabilities

#	Capability
1	Risk Assessment
2	Community Resilience and Preparedness
3	Mitigation (Structural and non-structural)
4	Community Emergency Management Planning
5	Public Information and Warning
6	Disaster Assessment and Situational Reporting
7	Operational Coordination in Emergency
8	Operational Communication in Emergency
9	Security and Protection
10	Fire Management and Suppression
11	Public Health and Emergency Medical Services
12	Search and Rescue Operations
13	Supply Chain management and Logistics
14	Transportation
15	Emergency Food/Nutrition
16	Emergency Shelter/Lodging
17	Emergency Clothing & Sundries
18	Family Services
19	Water, Sanitation, Hygiene
20	Education
21	Housing Solutions
22	Emergency Reception Centre
23	Critical Infrastructure resilience and restoration
24	Economic resiliency and recovery
25	Animal health and welfare

3.1.2. Other Survey Components

- **Contact information**: although there was a confidentiality clause whereby individuals and organizations would not be explicitly identified, this information was collected so as to be able to follow up with respondents for data verification purposes

- **Organization type**: the purpose of this section was to identify what kind of voluntary organizations are active in EM in Canada. Multiple responses could be selected.

- **Disaster Management Cycle**: the purpose of this section was to identify phases and sub-phases of the DM cycle where VSOs are able to activate their capabilities and capacity. Each phase and sub-phase was defined in the survey glossary[8] in addition to information "pop-ups" beside each option. The phases and sub-phases consisted in:

    - Prevention/Mitigation
    - Preparedness
    - Response
        - Early response
        - Sustained response
    - Recovery
        - Early recovery
        - Recovery and long-term recovery

- **Initiating authority**: the goal of this section was to better understand at whose request a capability was activated and also gain a better understanding of self-initiative, lines of authority, collaborations and partnerships. Respondents who selected the option "government" were asked to identify which level(s) of government (local, provincial, territorial).

- **Geographic Location and Workforce:** this section served to answer the questions "where?" and "how many?" employees and volunteers within each VSO, in order to gauge organizational capacity. For each selected capability, respondents had to first identify the province(s) and territory(ies) where their organization is active and then provide information on their workforce capacity. Again the glossary and "pops-ups" provided definitions for the terms in this section (i.e. spontaneous volunteers, staff, affiliated volunteers)

    - **Surge capacity**: For each selected province and territory, respondents were asked if they had the possibility or not to mobilize spontaneous volunteers; or if their organization simply did not recruit spontaneous volunteers

[8] Appendix 1, Survey Glossary

- **Workforce:** For each selected province and territory, respondents had to provide the estimated number of employees and affiliated volunteers by region whenever possible.

- **Training and certification**:

  - **Training**: the purpose was to identify if VSOs had training material that was current, and if training was offered to their employees and volunteers in relation to the selected capability.

  - **Certification:** Organizations were also asked if they had internal and/or external certification process in place to gauge if more formalized training and evaluation for a selected capability was in place.

- **Capacity Development:** VSOs were asked if, in the coming three years, they had formal plans to expand to other phases of the DM cycle, or to other locations, or to recruit more employees and/or volunteers. The purpose was to capture the direction of organizational development from status quo to active expansion.

3.1.3. Target organizations

The strategy for recruiting organizations was to reach out VSWG's network and extended network first, then reach out to referrals from organizations within early respondents, and through internet research focused on EM organizations in Canada. It was also planned to collect data from the volunteer fire departments and Indigenous Volunteer Fire Departments through their respective professional associations.

At the inception of the project, three tiers of VSOs were identified.

1) The first tier consisted of national VSOs with a specialization in EM

2) The second consisted of national VSOs that can support EM and community resilience in the face of disasters or humanitarian crises, though they would not be categorized directly as EM organizations.

3) The third tier consisted of provincial/territorial and local VSOs known to be able to support actively EM or situations of humanitarian crisis. Those would be directly identified either by tier 1 or tier 2 organizations, or by the lead researcher.

3.1.4. Methodological limitations

The following limitations were anticipated:

- Survey participation: It was recognized that beyond the immediate VSWG's network, the uptake rate for the survey could be lower as direct contact with respondent organizations gradually diminished.

- Subjectivity: It was recognized that this research would stand as a first diagnosis based on VSOs' self-evaluation and estimations and that, therefore, the information would be primarily of a qualitative nature.

- Regional breakdowns: From the outset it was known that collecting data at the regional level would prove extremely difficult as most organizations have their own geographic breakdown, and many do not gather data at the regional level.

- Workforce numbers: It was also known that the number spontaneous volunteers could not be predicted in advance, thus the choice was made only to ask about the possibility to mobilize spontaneous volunteers. Also, both employees and affiliated usually assume a number of roles within an organization. Therefore, it was recognized that only aggregation by single capability would be possible, but not aggregation for multiple capabilities as it would count multiple time the same volunteers.

3.2. Case studies: Purpose and Content

The purpose of the case studies was to offer a tangible illustration of the work of VSOs directly involved in EM and more particularly to explore:

- What needs arise from an emergency?
- Who's involved?
- What type of coordination, collaboration
- What is the level of integration with authorities, first responders (police, firefighters, para-medics), other voluntary sector organizations?
- What capabilities are activated by the VSOs?
- How affiliated volunteers are deployed? And how many?
- What dynamics related to surge capacity/spontaneous volunteers arise?
- What do those cases tell about community capacity and resilience?
- What are some gaps that persist?

4. Volunteers in EM: A Literature Overview

In recent years there has been an increased focus on the role of volunteers in disasters. As presented in a 2015 report of the Voluntary Sector Working Group [8], a number of factors are converging to establish the role of volunteers and the Voluntary Sector in disaster response and resilience. Pragmatically, as disasters grow in frequency, intensity and cost, there is recognition that governments cannot do it all [9]. Operationally, the field of Emergency Management (EM) is shifting from command-and-control towards people centered approaches that leverage citizens' capacity [10]. Strategically, reactive approaches, focused on preparedness and response, are being complemented by adaptive strategies focused on mitigation and resiliency [11]. Politically and culturally, volunteerism is fulfilling the growing desire of Civil Society to influence and govern on matters affecting its destiny [12] [13]. And tactically, the private sector is increasingly engaging employees in volunteerism to achieve community investment goals [14].

Volunteers in disaster

It is well documented that volunteers are a reliable and committed resource. Also, the simple fact of participating in response often mitigates negative psycho-social effects, by shifting their self-perception from victims to active volunteer responders. In the aftermath of a disaster, the first people who naturally respond are the uninjured survivors themselves. Reactions of panic, passivity, or disorderly conduct are generally the exception rather than the norm and, to the contrary, disasters lead to prosocial behaviors [15] [16] [12]. Additionally, the volunteerism spirit moves many people to register with volunteer organizations, some of which focus on disaster response and some which focus on providing on-going support to vulnerable segments of their communities.

For example, the 2013 Alberta flood is remembered for the phenomenal contribution of countless volunteers to relief efforts. From hosting evacuees to cleaning up thousands of homes and distributing emergency supplies, volunteers enabled a swift recovery while minimizing costs for governments and those affected by the flood. The flood highlighted, as previous disasters did, the instrumental role of volunteers and the capacity of the Canadian Voluntary Sector in disaster management which deployed over 15,000 volunteers towards relief and response efforts [8].

The economic value of volunteers

Although it remains difficult to assign an economic value to volunteer work, its contribution is considerable. A 2011 study by Salamon et al. estimates that if all volunteers were living in a single country, "Volunteerland", they would have the second largest adult population in the world and be the world's seventh largest economy [17].

In Canada, the TD Bank Group has estimated that Canadians gave the equivalent of $51.1 billion in unpaid hours in 2010 [18]. While there are costs associated to recruiting and mobilizing volunteers, the International Federation of Red Cross and Red Crescent (IFRC) has quantified that volunteers can

provide up to eight times the value of the investment back in services to the community [19]. And a 2010 survey of the IFRC has found that Red Cross volunteers contribute USD 868 million worth of services in the US and Canada with an average annual economic value of USD 1,224 per volunteer [20]. Beyond these figures, while donations of time and material resources from citizens and the private sector during disasters are still largely unquantified, they have unquestionably mitigated costs for governments.

Managing complexity: the changing nature of EM operations

While disasters are increasing in frequency and intensity, they are also taking roots in more complex and volatile environments where their consequences are less foreseeable and controllable. Beyond costs, governments alone cannot plan for all the particularities of an emergency situation. This increased unpredictability is accelerating the shift from top-down to bottom-up EM approaches. This shift is both leveraging and asserting response and adaptation mechanisms found at the community level and thus encouraging “whole-of-society resilience” [11].

With their unique knowledge of local conditions, local volunteers and Voluntary Sector Organizations (VSOs) are strategically positioned to understand and find solutions that reduce risk [21]. They also accelerate disaster assessment and access to immediate emergency resources [22]. The assistance of a dynamic base of volunteers can be significant, particularly when volunteers have training and knowledge that is relevant to the situation to which they attend.

Integrating volunteers and voluntary organizations that represent the inherent plurality found within society, in particular the diversity of the Canadian society, is a way of promoting inclusion and also finding the variety of resources needed in an emergency situation. The Alberta Wildfire case study presented in this report provides an illustration of the diversity of local organizations in Edmonton that responded to this major evacuation. While it highlights the readiness and social capital of the local non-profit and voluntary organizations, it also underscores how these collaborations were indispensable to assist a large and very diverse population of evacuees.

The enhanced integration of the Voluntary Sector and organizations of Civil Society at the local level enables simultaneously to foster pervasive awareness and actions required for risk reduction, foster more predictable and coordinated response operations, and fulfill the societal desire for participation.

Canadian volunteerism

Volunteerism in Canada is vibrant. Canadian statistics show that in 2013, 44% of Canadians 15 years and older volunteered for a charitable or non-profit organization9 [23]. The hours contributed by Canadian volunteers in 2013 stood at 1.96 billion hours, the equivalent to about 1 million full-time, year-round jobs.

Volunteering rates are highest among teens aged 15 to 19 (66%) and Canadians aged 35 to 44 (48%). However, volunteers aged 65 to 74 dedicate 231 hours annually, nearly double the amount of hours of teens (110 hours) and middle-aged volunteers (122 hours). Canadians with higher household income, education level and participation in the labour force are more likely to volunteer, but do not necessarily give the most hours. Religious attendance plays an important role in volunteering.
Faith plays an important role in the volunteerism landscape. Six in ten Canadians who attend weekly religious services also participate in volunteer activities compared to four in ten among Canadians who do not [23]. In terms of recruitment, the internet is becoming an important tool as 26% of volunteers under the age of 35 look for volunteer positions online, compared to 17% on average.

The vast majority of volunteers are motivated by the possibility to make a contribution to the community (93%) and by the opportunity to use their skills and experience (78%). Group dynamics exercise a major influence as 43% of volunteers offer their services to be part of a project with friends or co-workers and 25% to join immediate family members. Also, 59% of volunteers report being personally affected by the cause they are working for [18]. While people volunteer for different reasons, it is the possibility to care for others that usually predominates in the context of disasters [24].

Statistics also indicate that a lack of time is the leading barrier to volunteering. Canadians are increasingly seeking short-term, flexible volunteering opportunities as their working environment lends little time to contribute as full-time affiliated volunteers. [23] [25]. Therefore, although more volunteers will be available, it might increasingly be on an improvised and temporary basis [26].

On the private sector side, a 2013 report of the Conference Board of Canada shows that employee volunteering programs are one of the most important non-monetary ways in which corporations contribute to the community [14]. Out of 102 companies surveyed by the Conference Board, 57% had an employee volunteering program. Although only 69 firms tracked the numbers of hours contributed, the total amount rose to over 1 million hours to the community in 2011. Twenty percent were donated during regular working hours, and 60% outside regular business hours. The survey also found that most companies are planning to maintain or increase their corporate community investment programs, even in challenging economic climate.

[9] In 2013, 82% of Canadians reported helping people directly, outside any organization or group.

Spontaneous and Emergent Volunteers

Among spontaneous volunteers, literature in disaster management often distinguishes between spontaneous volunteers who offer their assistance to established organizations and those who self-organize into groups and self-deploy. The latter group is coined under the phenomenon of “emergence” and the term of “emergent volunteers” [15] [13] [27].

The participation of spontaneous volunteers in disaster response still suffers from real and perceived organizational challenges. The field of EM has been influenced by command-and-control approaches and the “mass convergence” of spontaneous volunteers tends to be viewed as a “crowd control” problem that can interfere with the work of emergency management professionals [28]. However, as noted by a 2007 study of the Voluntary Sector, in light of volunteerism trends in Canada, the number of spontaneous, but often untrained, volunteers who “walk-in” on site is likely to grow [26].

In addition to generating “prosocial” behaviours, disasters create a set of factors particularly opportune to spontaneous and emergent volunteers. Constant media attention and the amplification effects through social media encourage volunteer mobilization. Following disasters, there may be a sentiment of a “vacuum of authority”. Therefore, “[d]isaster volunteers step up to provide immediate action when they see perceived poor coordination, lapses in authority, and/or that response organizations are focused upon confronting only the largest demands in an incident.” [15, p. 58]. Emergent volunteers, in particular, feel they can solve problems that are not addressed by formal agencies and organizations. And indeed, they often have the possibility to improvise and innovate with new strategies, tools, technologies compared to agencies and organizations using established systems [15] [28].

The occurrence of spontaneous and emergent volunteers requires some enabling conditions and comes with a number of limitations. It necessitates the existence of a supportive social climate where relevant social relationships, typically based on a place or an identity, are established and where people can afford giving time, knowledge and, possibly, material resources [13]. In the absence of previous association with any EM organization and, sometimes, in the absence of detailed planning on where and how these volunteers will be used, their offer may go under-utilized. Their presence is also viewed as creating additional work for disaster response personnel who have to coordinate or oversee their involvement. In worst case, spontaneous and emergent volunteers’ participation can result in liability challenges and life-threatening situations for disasters victims, professional responders and volunteers themselves [12] [26] [29] [30].

In order to leverage this important resource, the Voluntary Sector has generally established strong processes to manage spontaneous volunteers. Proposed practices include those developed organizations such as Volunteer Canada [31] [32], Justice Institute of British Columbia [33], Canadian Red Cross [34], American Red Cross [35], Swedish Red Cross [36], Points of Light Foundation [37], California Governor’s Office of Emergency Services [38], and RGK Center for Philanthropy and Community Service [39] to name a few. These practices focus on: workforce planning, recruitment,

selection, placement, orientation, training, engagement, recognition, evaluation, and records management.

The Voluntary Sector in Frameworks and Strategies

International agencies, national, regional and local governments are increasingly promoting people-centered approaches whereby Civil Society, including voluntary organizations, becomes a catalyst to Disaster Risk Management and Reduction (DRM/DRR) strategies. The role of voluntary organizations is unequivocal in the UNISDR's the Sendai Framework and its articulation is becoming more explicit at the federal, provincial and municipal level in Canada [5].

In 2009, the Government of Canada had established its National Platform for Disaster Risk Reduction to build multi-stakeholder coordinated leadership in DRR. Echoing the HFA, the Platform's vision consists of building "A safer and more resilient Canada through the reduction of risks and leveraging of capacities and opportunities across all levels of government, the private sector, academia, NGOs, professional associations, Aboriginal groups, and the general public" [40]. The Platform has currently four working groups to examine emerging issues. The role of the Voluntary Sector Working Group (VSWG) is to help advance the Voluntary Sector's readiness and engagement within the Federal Emergency Management Framework of Canada[10].

The Emergency Management Framework of Canada's strategy is based on shared responsibility, community resiliency and partnerships as key components of Federal, Provincial and Territorial (FPT) emergency management systems. It calls for effective collaboration, coordination and communication among all stakeholders: "All Canadians are involved in emergency management. Individual citizens, communities, municipalities, and federal, provincial, territorial governments, Aboriginal peoples, emergency first responders, the private sector (both business and industry), volunteer and non-governmental organizations, academia, as well as international organizations and allies may be involved in emergency management." [41, p. 6]. This approach thus reinforces the need for the Voluntary Sector to be part of the formal EM process.

In its 2015-2016 Report on Plans and Priorities, Public Safety Canada reiterates its support to implementing the Hyogo Framework for Action and modernizing Canada's approach to emergency management by strengthening whole-of-society resilience [6].

On March 2016, Canada has adopted the Sendai Framework for Disaster Risk Reduction which reiterates that *"There has to be a broader and people-centered preventive approach to disaster risk"* [7, p. 10]. Thus, in the second Priority for Action, the Framework underscores the importance to strengthen disaster risk governance by *"ensuring the coherence of national and local frameworks (...) [that] encourage and incentivize the public and private sectors to take action and address disaster risk"*.

[10] Other groups are the Resilient Communities Working Group which focuses on cities and local governments, the Private Sector Partnership Working Group and the Indigenous Resilience Working Group.

Furthermore, the Framework states as a Guiding principle that *"Disaster risk reduction requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible and non discriminatory participation, paying special attention to people disproportionately affected by disasters, especially the poorest. A gender, age, disability and cultural perspective should be integrated in all policies and practices, and women and youth leadership should be promoted. In this context, special attention should be paid to the improvement of organized voluntary work of citizens"* [7, p. 13]

5. Results

A package outlining the purpose and the content of the survey was prepared to help respondents better understand the goal of the study and encourage their participation. Also, to maximize participation once initial contact was established with a target organization, up to eight communication attempts were made to ensure that an organization would be part of the study.

The following represents in numbers the outcome of researching VSOs for the purpose of the survey:

- A total of 67 organizations were identified, excluding the Volunteer Fire Departments which were contacted through their umbrella organization

- 46 met the criteria for the study (operating in EM, or with the ability to closely support EM operations and disaster resilience at the community level). These organizations were contacted for the survey resulting in the following distribution:

Table 2: Number of Organizations Contacted and Respondents

Tier	Number of Organizations Contacted	Organizations that completed the survey
1 - National organizations in EM	16	14
2 - National organizations that can closely support EM	10	2
3 - Local, regional and provincial organizations involved in EM	20	11*
Volunteer Fire Departments	Total unknown; identified through Canadian Council of Fire Marshals and Fire Commissioners	9

* This also includes one national VSO in EM for which data could only be collected at the provincial level

As shown in Table 2, nearly all national VSOs involved in EM (tier 1) completed the survey, providing a comprehensive sectoral view of their capabilities and capacity. Indeed, out of the 16 national VSOs in EM, 14 responded. As for the missing two organizations, one of them reported being currently active in EM only in one province and therefore provided information only for this province. It was therefore included with Tier 3 group. The other organization, though national in scope, had very limited staff capacity and was unable to invest any time in the survey.

Data from the two Tier 2 organizations that completed the survey was included in the national dataset of VSOs because they could closely provide support to EM operations.

Together Tier 1 and Tier 2 organizations both provided consistent information on workforce (employees and volunteers) at the provincial/territorial level.

This aggregated dataset is identified as **National VSOs in EM**.

Eleven other organizations including local, regional, provincial, and indigenous organizations, and one chapter of a national organization, also participated in the study. The data represented very disparate geographic locations making it difficult to aggregate in a consistent manner.

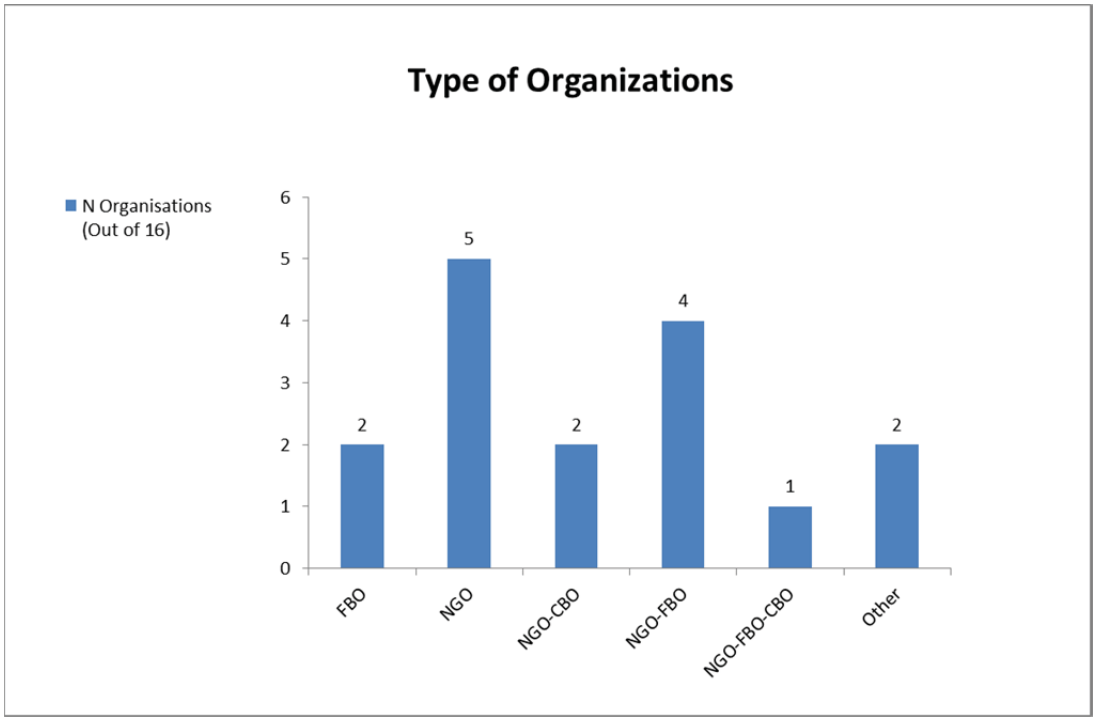
With respect to the volunteer fire departments, their professional association was responsible for the distribution of the survey. Nine completed surveys were received, however these were all from Nova Scotia.

5.1. National VSOs in EM

5.1.1. Profile

Identity and Affiliation: A closer look at the 16 National VSOs in EM shows that they self-identify along an array of organization types as shown in Graph 1. To note, nearly half (7 out of 16) state affiliation to a Faith-Based Organization (FBO).

Graph 1 - National VSOs in EM by Type



5.1.2. Diverse Capabilities, Strong Capacity

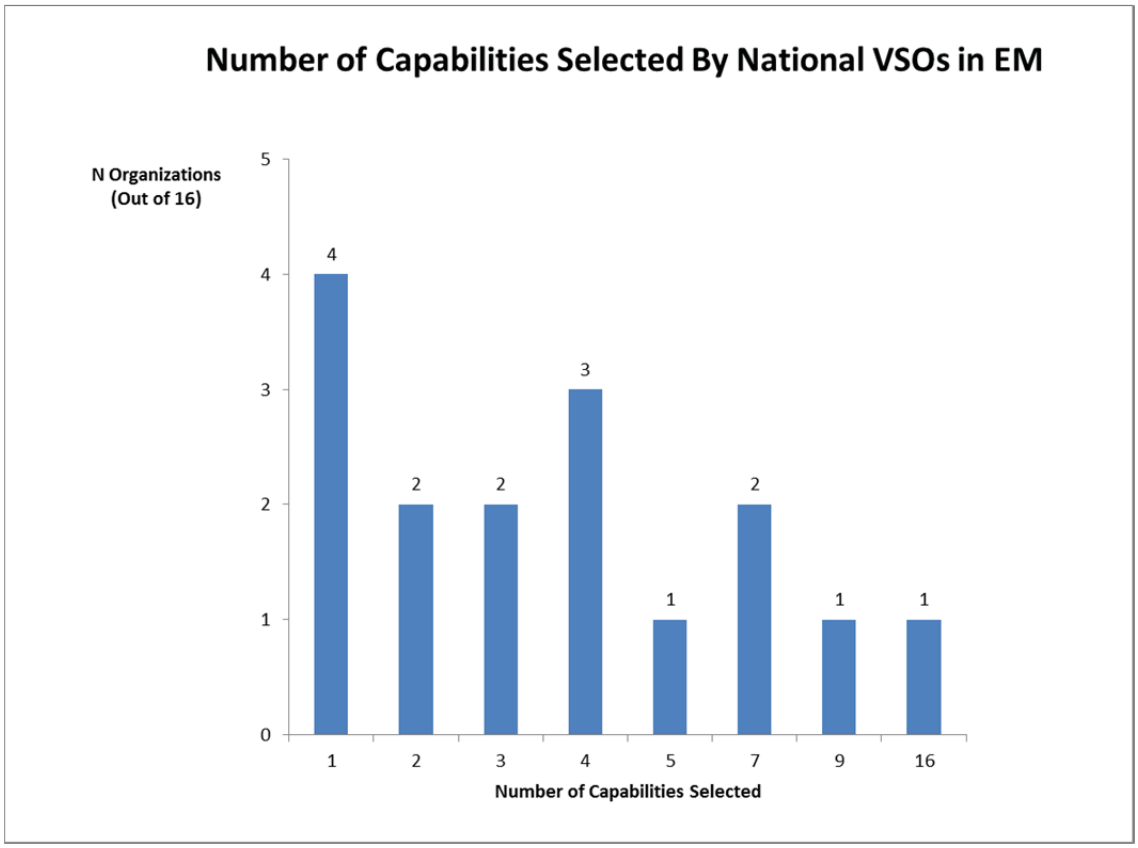
Table 3 presents the number of national VSOs in EM, employees, affiliated volunteers, and the number of organization recruiting spontaneous volunteers (indicating surge capacity) by capability.

Table 3 – Capabilities and Capacity of National VSOs in EM

		National			
	Capability	**Number of Organisations (Out of 16)**	**Employees**	**Affiliated Volunteers**	**Total N Org with Surge Capacity***
Cap01	Risk Assessment	2	60	9,129	1
Cap02	Community Resilience and Preparedness	4	5,588	58,056	3
Cap03	Mitigation (Structural and non-structural)	-	-	-	-
Cap04	Community Emergency Management Planning	5	145	14,294	3
Cap05	Public Information and Warning	4	841	34,738	3
Cap06	Disaster Assessment and Situational Reporting	2	59	4,707	1
Cap07	Operational Coordination in Emergency	5	80	19,412	3
Cap08	Operational Communication in Emergency	6	809	41,341	3
Cap09	Security and Protection	1	-	8,796	-
Cap10	Fire Management and Suppression		-	-	
Cap11	Public Health and Emergency Medical Services	2	114	4,538	-
Cap12	Search and Rescue Operations	4	795	36,196	2
Cap13	Supply Chain management and Logistics	4	5,611	59,146	3
Cap14	Transportation	3	810	24,217	2
Cap15	Emergency Food/Nutrition	4	5,532	58,104	3
Cap16	Emergency Shelter/Lodging	3	150	8,539	2
Cap17	Emergency Clothing & Sundries	4	356	9,029	3
Cap18	Family Services	4	1,079	23,495	4
Cap19	Water, Sanitation, Hygiene	3	5,455	54,770	2
Cap20	Education	1	-	8,796	-
Cap21	Housing Solutions	4	102	5,021	4
Cap22	Emergency Reception Centre	3	184	7,517	1
Cap23	Critical Infrastructure resilience and restoration	-	-	-	
Cap24	Economic resiliency and recovery	1	32	1,038	1
Cap25	Animal health and welfare	1	-	474	1

* Number of Voluntary Organizations that have surge capacity in at least one province or territory

Graph 2 – Number of Capabilities Selected By Number of National VSOs in EM



Capabilities

- Data from Table 3 shows that the national VSOs in EM in Canada provide nearly all capabilities identified in EM for the Voluntary Sector.

- The majority of national VSOs in EM selected 4 or less capabilities. One organization selected a total of 16 capabilities. (Graph 2)

- However, three capabilities were not selected by the 16 national VSOs in EM:

    - Mitigation (structural and non-structural)
    - Fire Management and Suppression
    - Critical Infrastructure Resilience and Restoration.

It was assumed, from the outset of this research, that Fire Management and Suppression, and to a certain extent, Mitigation (structural and non-structural) and Critical Infrastructure Resilience and Restoration would be capabilities reported by local volunteer fire departments, and/or voluntary

organizations specialized in the area of civil engineering. However no voluntary organization working in the area of civil engineering could be identified during the research process.

Capacity, Affiliated Volunteers

- In terms of capacity, national VSOs in EM showcase impressive numbers of affiliated volunteers:

    - The number of affiliated volunteers exceeds 50,000 for each of these four capabilities:
        - Supply Chain Management and Logistics
        - Emergency Food/Nutrition
        - Community Resilience and Preparedness
        - Water, Sanitation, and Hygiene

    - There are 11 capabilities that each have over 10,000 affiliated volunteers

- Geographic distribution of affiliated volunteers (Appendix 4)

    - For half of the capabilities, Ontario and British Columbia provide 50% or more of the total number of affiliated volunteers available.

    - However British Columbia is the only province which provides on average significantly more volunteers (21% on average for all capabilities combined) than its share of Canadian population (13%).

    - In comparison, while Ontario represents 39% of Canadian population, it provides on average 26% of affiliated volunteers for all capabilities combined.

    - The four Atlantic Provinces also do have more volunteers on average for all capabilities (4%) than their average population share (2%).

    - Search & Rescue is the strongest capability in each of Northern Canada's territories, with a maximum of 327 affiliated volunteers in this capability in the Northwest Territories.

Capacity, Spontaneous Volunteers

- Surge Capacity: there are 19 capabilities for which national VSOs in EM can expand beyond their affiliated volunteers to meet an increase in demand for personnel, and services by engaging and deploying volunteers.

Number of Organizations:

- While national VSOs in EM do cover almost the full range of capabilities, including some with large numbers of employees and/or volunteers, it is important to recognize that the number of organizations per capability is limited and ranges from 1 to 4 organizations for the majority of capabilities. This could denote that many national VSOs in EM occupy specific areas of service delivery. This could indicate that there is likely limited overlap but also opportunity and perhaps need for stronger integration and complementarity.

5.1.3. The DM Cycle: A Focus on Response

Graph 3 illustrates how many national VSOs in EM report being able to operate according to the four major phases of the Disaster Management (DM) cycle, irrespective of the capabilities selected. It shows that while nearly all of them (14 out of 16) can provide a capability in response, only a third of them (5 out of 16) are active in prevention and mitigation and only half of them in preparedness.

Table 4 shows how many national VSOs in EM report being able to operate according to the major phases and sub phases of the Disaster Management (DM) cycle by capability. It confirms the strength of Canadian VSOs in EM throughout Response phase, including Early and Sustained Response, for most of the capabilities. It also illustrates the fluidity of the DM Cycle as many capabilities are offered to some degree across the phase of the DM Cycle.

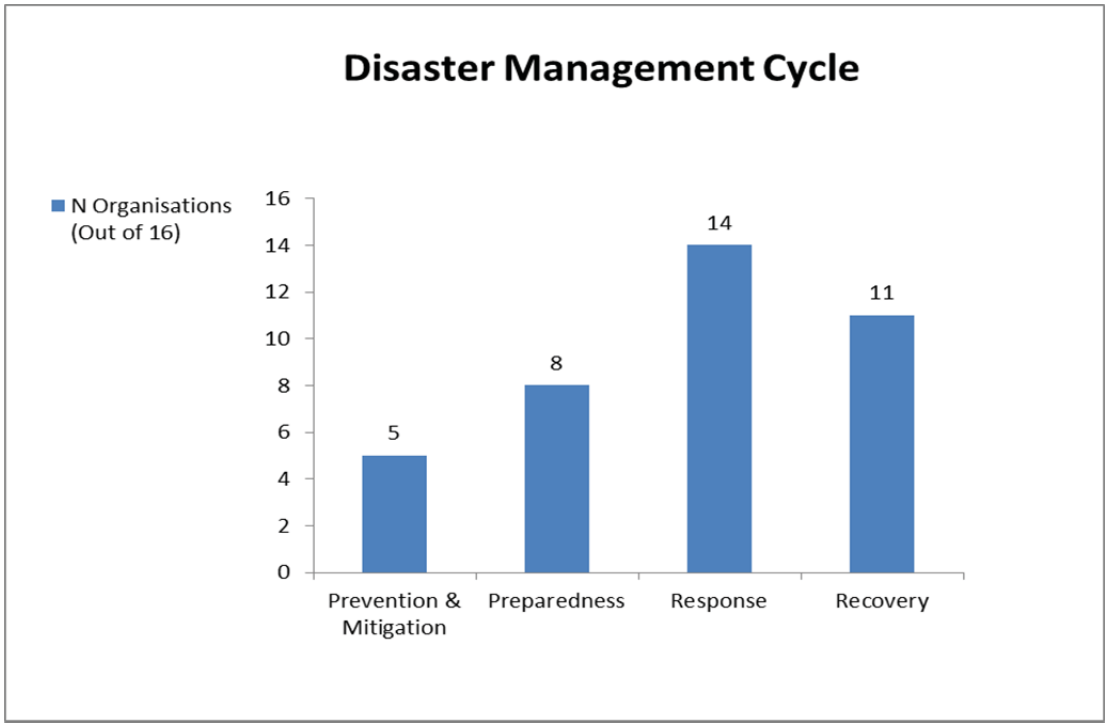
However two additional clusters emerge:

- For capabilities that lean towards disaster response, national VSOs in EM also tend to be active in the Prevention & Mitigation and Preparedness phases (Community Resilience and Preparedness; Community Emergency Management Planning; Public Information and Warning; Disaster Assessment and Situational Reporting; Operational Coordination in Emergency; Operational Communication in Emergency; Security and Protection; Public Health and Emergency Medical Services).

- For capabilities that lean towards Emergency Social Services (ESS), national VSOs in EM extend their services from Immediate Recovery into Long-term Recovery (Emergency Food/Nutrition; Emergency Shelter/Lodging; Emergency Clothing & Sundries; Family Services). However very few VSOs, if any, invest in ESS related capabilities in the Prevention & Mitigation and Preparedness phases.

Graph 4 and indicates the DM cycle phases for which national VSOs in EM are planning to build capacity for their selected capabilities in the next three-years. While VSOs were asked to only identify DM phases other than the ones in which they are currently operating, VSOs reported both (current and planned). Furthermore, only one third of these VSOs reported plans related to capacity development in some phases of the DM cycle. Therefore the most salient observation is that 2/3 of VSOs do not envision Capacity Development along the various phases of the DM Cycle.

Graph 3 – National VSOs in EM by DM Cycle



Graph 4 – National VSOs in EM with Capacity Development Plan for DM Cycle

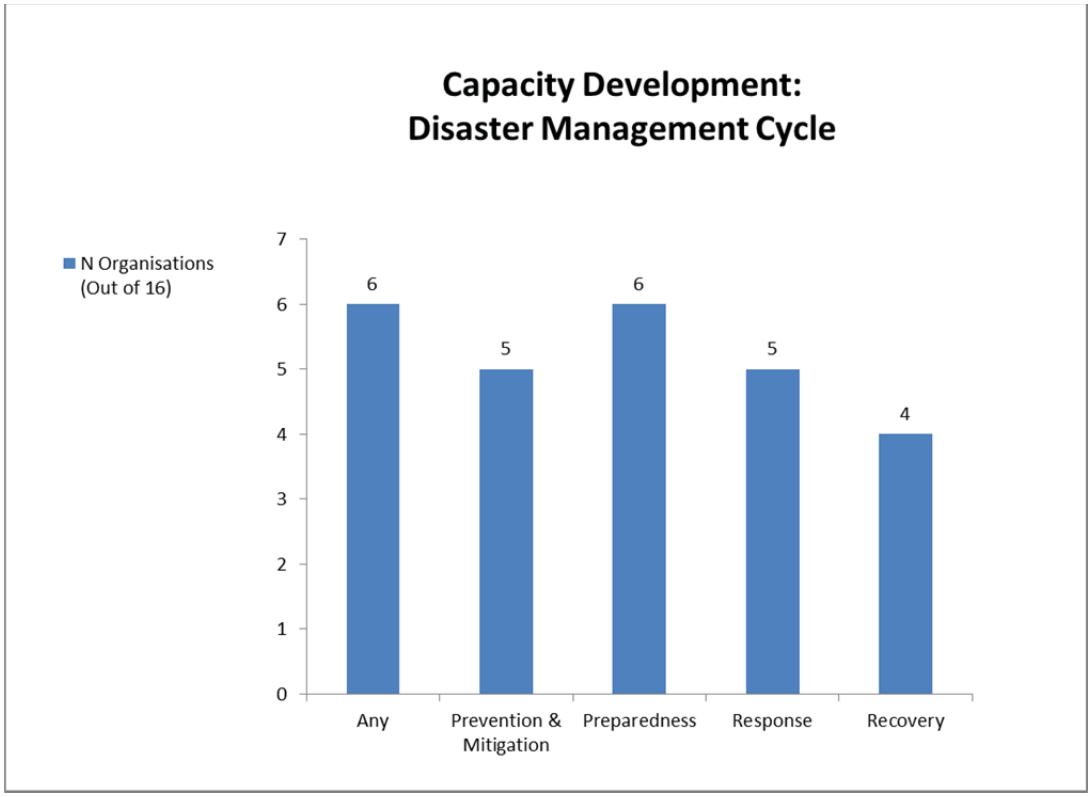


Table 4 - Number of National VSOs in EM by Capability and by Disaster Management Cycle Phases

		Total Number of Voluntary Organisations (Out of 16)	Total Number of Affiliated Volunteers	Prevention and Mitigation	Preparedness	Response	Response: Early Response	Response: Sustained Response	Recovery	Recovery: Early Recovery	Recovery: Recovery and Long-Term Recovery
Cap01	Risk Assessment	2	9,129	1	1	2	1	2	2	2	1
Cap02	Community Resilience and Preparedness	4	58,056	3	3	3	3	3	1	1	1
Cap03	Mitigation (Structural and non-structural)		-								
Cap04	Community Emergency Management Planning	5	14,294	4	5	3	3	2	1	1	-
Cap05	Public Information and Warning	4	34,738	3	3	4	4	3	3	3	2
Cap06	Disaster Assessment and Situational Reporting	2	4,707	-	-	2	2	1	1	1	1
Cap07	Operational Coordination in Emergency	5	19,412	3	5	5	5	4	3	3	2
Cap08	Operational Communication in Emergency	6	41,341	4	5	6	6	6	4	3	3
Cap09	Security and Protection	1	8,796	1	1	1	1	1	-	-	-
Cap10	Fire Management and Suppression		-								
Cap11	Public Health and Emergency Medical Services	2	4,538	2	2	2	2	2	1	1	-
Cap12	Search and Rescue Operations	4	36,196	2	2	4	4	3	2	2	1
Cap13	Supply Chain management and Logistics	4	59,146	1	2	4	4	4	4	4	3
Cap14	Transportation	3	24,217	-	-	3	3	3	2	2	2
Cap15	Emergency Food/Nutrition	4	58,104	-	2	4	4	4	4	4	2
Cap16	Emergency Shelter/Lodging	3	8,539	-	1	3	3	3	3	3	1
Cap17	Emergency Clothing & Sundries	4	9,029	-	1	4	4	4	4	4	3
Cap18	Family Services	4	23,495	-	1	4	4	4	4	4	3
Cap19	Water, Sanitation, Hygiene	3	54,770	-	-	3	3	3	2	2	2
Cap20	Education	1	8,796	1	1	1	1	-	-	-	-
Cap21	Housing Solutions	4	5,021	-	-	1	-	1	4	3	4
Cap22	Emergency Reception Centre	3	7,517	1	1	3	3	3	3	2	1
Cap23	Critical Infrastructure resilience and restoration		-								
Cap24	Economic resiliency and recovery	1	1,038	-	-	-	-	-	1	-	1
Cap25	Animal health and welfare	1	474	-	-	1	1	-	-	-	-

3/4 of organisations or more
More than 1/4 to less than 3/4 of organisations
1/4 or less of organisations

Table 5 - Number of National VSOs in EM Planning to Expand to Other Phases of the DM Cycle

		Total Number of Voluntary Organisations (Out of 16)	Total Number of Affiliated Volunteers	Capacity Development in Other Phase(s) of DM Cycle	Prevention and Mitigation	Preparedness	Response	Response: Early Response	Response: Sustained Response	Recovery	Recovery: Early Recovery	Recovery: Recovery and Long-Term Recovery
Cap01	Risk Assessment	2	9,129	1	1	1	1	1	-	-	-	-
Cap02	Community Resilience and Preparedness	4	58,056	2	1	2	1	1	1	-	-	-
Cap03	Mitigation (Structural and non-structural)		-									
Cap04	Community Emergency Management Planning	5	14,294	1	1	1	1	1	1	-	-	-
Cap05	Public Information and Warning	4	34,738	1	1	1	1	1	1	-	-	-
Cap06	Disaster Assessment and Situational Reporting	2	4,707	-	-	-	-	-	-	-	-	-
Cap07	Operational Coordination in Emergency	5	19,412	2	1	2	2	2	1	-	-	-
Cap08	Operational Communication in Emergency	6	41,341	4	4	4	4	4	3	3	3	2
Cap09	Security and Protection	1	8,796	-	-	-	-	-	-	-	-	-
Cap10	Fire Management and Suppression		-									
Cap11	Public Health and Emergency Medical Services	2	4,538	2	2	2	2	2	2	1	1	-
Cap12	Search and Rescue Operations	4	36,196	2	2	2	2	2	2	1	1	-
Cap13	Supply Chain management and Logistics	4	59,146	1	-	1	-	-	-	-	-	-
Cap14	Transportation	3	24,217	-	-	-	-	-	-	-	-	-
Cap15	Emergency Food/Nutrition	4	58,104	2	-	2	1	1	1	1	1	1
Cap16	Emergency Shelter/Lodging	3	8,539	-	-	-	-	-	-	-	-	-
Cap17	Emergency Clothing & Sundries	4	9,029	-	-	-	-	-	-	-	-	-
Cap18	Family Services	4	23,495	-	-	-	-	-	-	-	-	-
Cap19	Water, Sanitation, Hygiene	3	54,770	1	-	-	-	-	-	-	-	-
Cap20	Education	1	8,796	-	1	1	-	-	-	-	-	-
Cap21	Housing Solutions	4	5,021	-	-	-	-	-	-	-	-	-
Cap22	Emergency Reception Centre	3	7,517	1	1	1	1	1	1	1	1	-
Cap23	Critical Infrastructure resilience and restoration		-									
Cap24	Economic resiliency and recovery	1	1,038	-	-	-	-	-	-	-	-	-
Cap25	Animal health and welfare	1	474	-	-	-	-	-	-	-	-	-

3/4 of organisations or more
More than 1/4 to less than 3/4 of organisations
1/4 or less of organisations

5.1.4. Initiating Authority

As shown in Graph 5 and Table 6, most national VSOs in EM (12 out of 16) report activating their capabilities at their own initiative.

Two-thirds of them activate at least one of their capabilities at the request of a government level. Local, provincial and federal governments were mentioned in nearly equal measure. Seven out of 16 VSOs in EM reference an external partner which, looking at details provided by respondents, often include a governmental agency such as the local police, the RCMP, the Canadian Coast Guard and, in some instances, a regional EM coordination group or another VSO. Therefore, while national VSOs demonstrate a high level of self initiative, governmental bodies are their privileged partners.

Graph 5 - National VSOs in EM and Initiating Authority

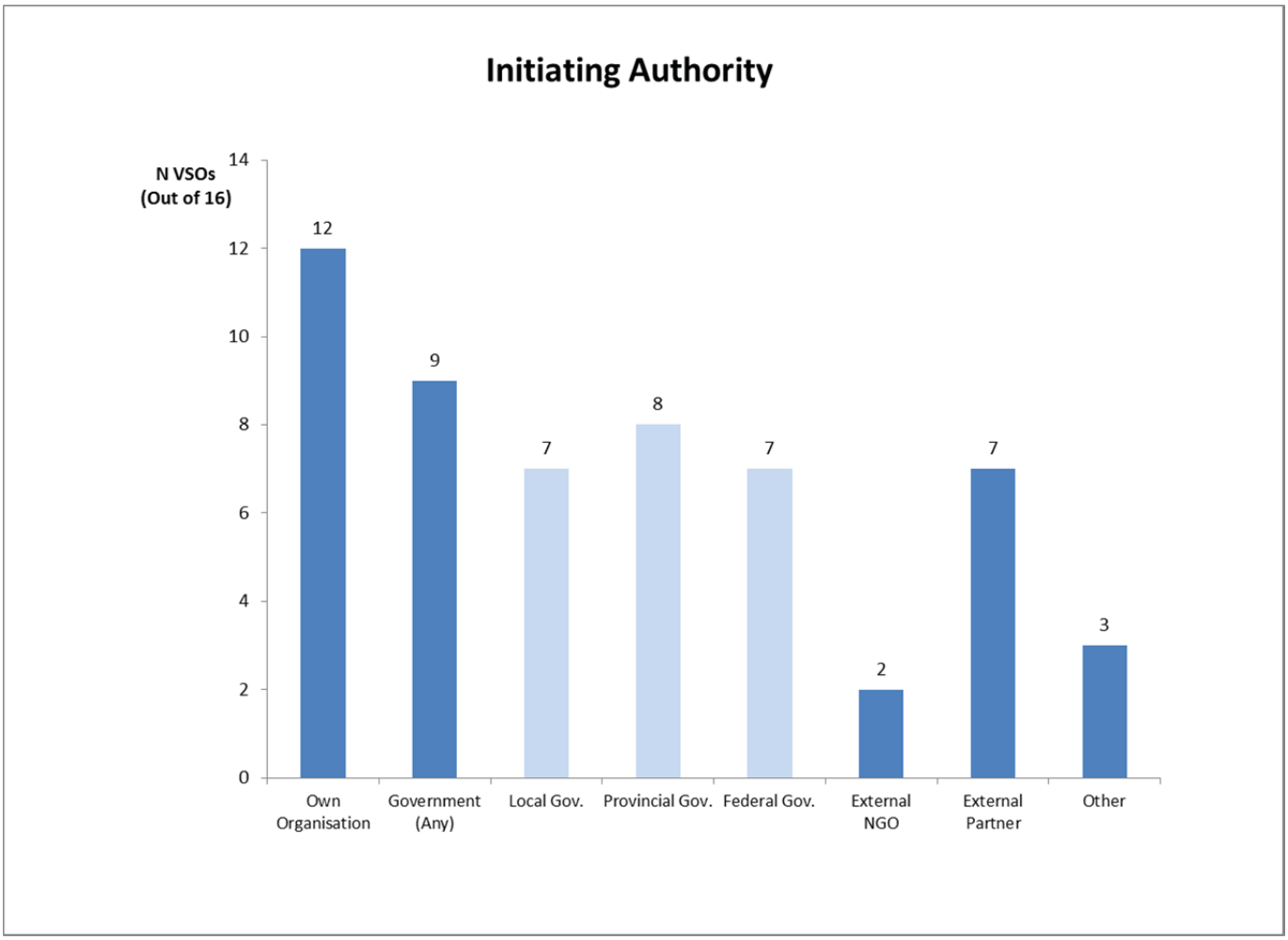


Table 6 – National VSOs in EM by Capability and by Initiating Authority

	Capability	Total Number of Voluntary Organisations (Out of 16)	Total Number of Affiliated Volunteers	Own Organisation	Government	Local Government	Provincial Government	Federal Government	External NGO	External Partner	Other
Cap01	Risk Assessment	2	9,129	1	2	2	2	1	1	1	-
Cap02	Community Resilience and Preparedness	4	58,056	3	2	2	2	2	1	2	1
Cap03	Mitigation (Structural and non-structural)	0	-								
Cap04	Community Emergency Management Planning	5	14,294	5	4	2	3	4	1	2	-
Cap05	Public Information and Warning	4	34,738	3	3	1	2	3	-	2	-
Cap06	Disaster Assessment and Situational Reporting	2	4,707	1	2	1	2	2	-	2	-
Cap07	Operational Coordination in Emergency	5	19,412	4	2	-	1	2	-	2	-
Cap08	Operational Communication in Emergency	6	41,341	6	3	1	2	2	-	2	1
Cap09	Security and Protection	1	8,796	-	1	-	1	1	-	-	-
Cap10	Fire Management and Suppression		-								
Cap11	Public Health and Emergency Medical Services	2	4,538	2	2	1	1	2	1	1	-
Cap12	Search and Rescue Operations	4	36,196	2	3	-	2	3	-	3	-
Cap13	Supply Chain management and Logistics	4	59,146	1	3	2	3	2	-	-	1
Cap14	Transportation	3	24,217	2	2	1	2	2	-	2	-
Cap15	Emergency Food/Nutrition	4	58,104	3	2	2	2	2	-	-	1
Cap16	Emergency Shelter/Lodging	3	8,539	3	2	2	2	2	-	-	-
Cap17	Emergency Clothing & Sundries	4	9,029	3	3	3	3	2	-	-	-
Cap18	Family Services	4	23,495	3	2	2	2	1	-	1	-
Cap19	Water, Sanitation, Hygiene	3	54,770	2	2	2	2	2	-	-	1
Cap20	Education	1	8,796	1	1	1	1	1	-	-	-
Cap21	Housing Solutions	4	5,021	4	1	1	1	-	1	2	1
Cap22	Emergency Reception Centre	3	7,517	3	3	3	3	3	1	-	-
Cap23	Critical Infrastructure resilience and restoration	0	-								
Cap24	Economic resiliency and recovery	1	1,038	1	-	-	-	-	-	-	-
Cap25	Animal health and welfare	1	474	-	1	1	1	1	-	-	-

3/4 of organisations or more
More than 1/4 to less than 3/4 of organisations
1/4 or less of organisations

5.1.5. Training and Certification

As shown in Graph 6 and Table 7, nearly all national VSOs report, for almost all capabilities, having training materials (14 out of 16) and conducting training sessions (13 out of 16). Twelve VSOs also state that their training material was regularly reviewed at a minimal on an annual basis according to their comments.

Certification, in particular external certification, is limited across capabilities except for the following four capabilities: Operational Communication in Emergency; Security and Protection; Public Health and Emergency Medical Services; Search and Rescue Operations. While the number of organizations remains small, they all have a certification process in place.

Graph 6 – National VSOs in EM and Training & Certification

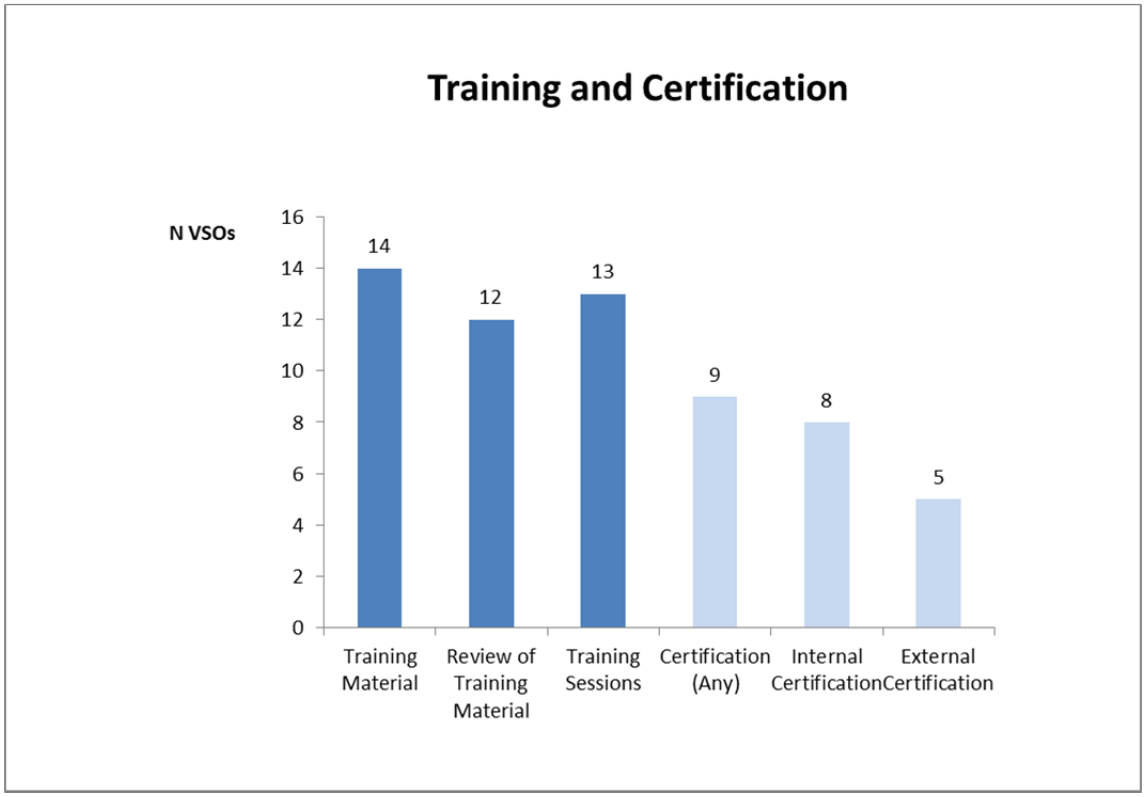


Table 7 – National VSOs in EM by Capability and by Training and Certification

				Training			Certification		
	Capability	Total Number of Voluntary Organisations (Out of 16)		Have Training Material	Review Their Training Material	Conduct Training Sessions	Have Certification	Have Internal Certification	Have External Certification
Cap01	Risk Assessment	2	9,129	2	2	2	1	1	1
Cap02	Community Resilience and Preparedness	4	58,056	3	2	2	-	-	-
Cap03	Mitigation (Structural and non-structural)	0	-						
Cap04	Community Emergency Management Planning	5	14,294	5	5	5	3	2	2
Cap05	Public Information and Warning	4	34,738	2	1	2	2	2	1
Cap06	Disaster Assessment and Situational Reporting	2	4,707	1	1	1	1	-	1
Cap07	Operational Coordination in Emergency	5	19,412	5	4	5	2	2	1
Cap08	Operational Communication in Emergency	6	41,341	5	5	5	5	4	2
Cap09	Security and Protection	1	8,796	-	-	1	1	1	1
Cap10	Fire Management and Suppression		-						
Cap11	Public Health and Emergency Medical Services	2	4,538	2	2	2	2	2	1
Cap12	Search and Rescue Operations	4	36,196	2	2	3	3	3	2
Cap13	Supply Chain management and Logistics	4	59,146	2	1	1	1	1	-
Cap14	Transportation	3	24,217	-	-	-	-	-	-
Cap15	Emergency Food/Nutrition	4	58,104	4	3	3	1	1	-
Cap16	Emergency Shelter/Lodging	3	8,539	3	2	2	-	-	-
Cap17	Emergency Clothing & Sundries	4	9,029	4	4	4	2	2	-
Cap18	Family Services	4	23,495	3	3	3	1	1	-
Cap19	Water, Sanitation, Hygiene	3	54,770	3	1	1	1	1	-
Cap20	Education	1	8,796	-	-	-	-	-	-
Cap21	Housing Solutions	4	5,021	2	2	2	1	1	-
Cap22	Emergency Reception Centre	3	7,517	2	2	3	1	1	-
Cap23	Critical Infrastructure resilience and restoration	0	-						
Cap24	Economic resiliency and recovery	1	1,038	-	-	-	-	-	-
Cap25	Animal health and welfare	1	474	1	-	1	-	-	-

3/4 of organisations or more
More than 1/4 to less than 3/4 of organisations
1/4 or less of organisations

5.1.6. Capacity Development: New Locations and Recruitment

- Two-thirds of National VSOs in EM reported that, in the coming three years, they have formal plans to expand to other locations and to recruit more affiliated volunteers.

- In terms of geography, such responses indicate VSOs' ambition to deliver their services in new areas.

- With respect to volunteer recruitment, as few organizations provided additional comments, it cannot be determined if the recruitment is to increase volunteer workforce or to off-set volunteer attrition.

Graph 7 – National VSOs in EM Planning to Recruit and/or Expand to New Locations

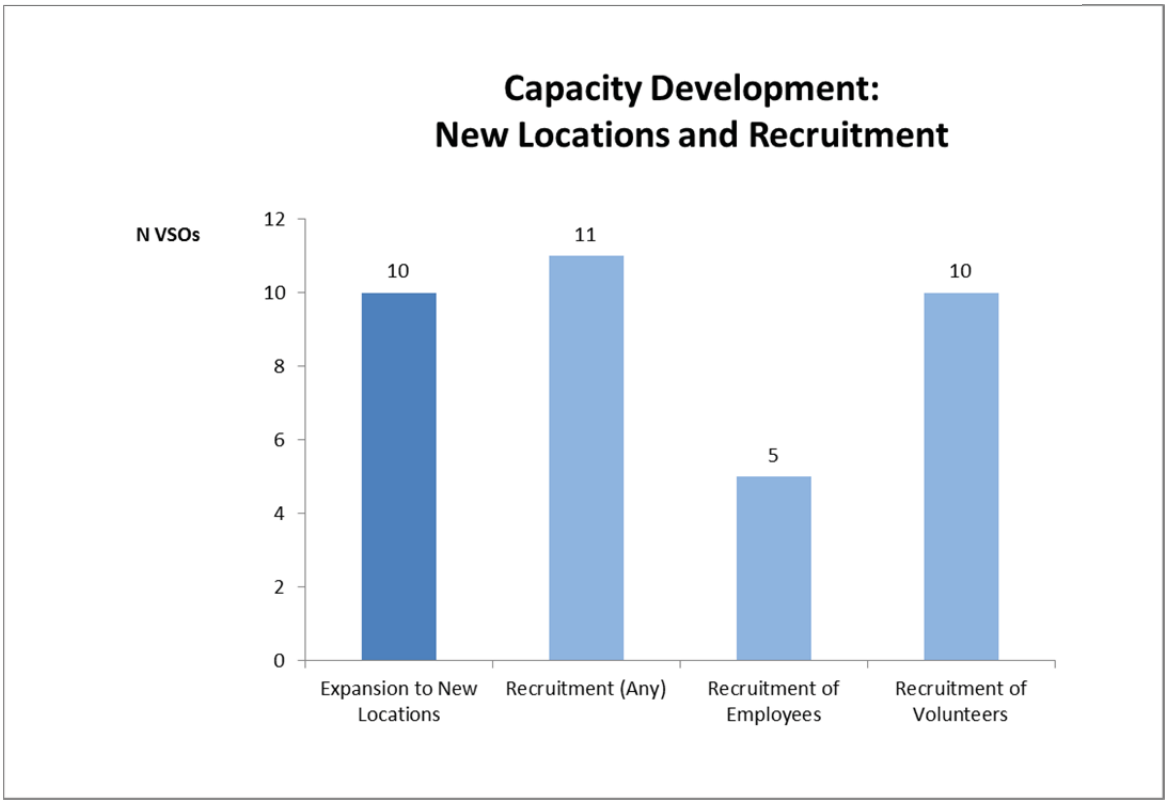


Table 8 – National VSOs in EM Planning to Recruit and/or Expand to New Locations

		Total Number of Voluntary Organisations (Out of 16)	Total Number of Affiliated Volunteers	Planning to Expand to Other Locations	Workforce Planning		
					Planning to Recruit	More Employees	More Volunteers
Cap01	Risk Assessment	2	9,129	2	1	1	1
Cap02	Community Resilience and Preparedness	4	58,056	1	3	1	3
Cap03	Mitigation (Structural and non-structural)		-				
Cap04	Community Emergency Management Planning	5	14,294	1	2	1	2
Cap05	Public Information and Warning	4	34,738	2	1	1	1
Cap06	Disaster Assessment and Situational Reporting	2	4,707	1	1	-	1
Cap07	Operational Coordination in Emergency	5	19,412	2	3	1	3
Cap08	Operational Communication in Emergency	6	41,341	3	4	-	4
Cap09	Security and Protection	1	8,796	-	-	-	-
Cap10	Fire Management and Suppression		-				
Cap11	Public Health and Emergency Medical Services	2	4,538	1	2	-	2
Cap12	Search and Rescue Operations	4	36,196	2	3	2	2
Cap13	Supply Chain management and Logistics	4	59,146	1	1	1	1
Cap14	Transportation	3	24,217	1	-	1	-
Cap15	Emergency Food/Nutrition	4	58,104	1	2	1	2
Cap16	Emergency Shelter/Lodging	3	8,539	-	1	-	1
Cap17	Emergency Clothing & Sundries	4	9,029	1	2	1	2
Cap18	Family Services	4	23,495	2	1	-	1
Cap19	Water, Sanitation, Hygiene	3	54,770	2	3	2	1
Cap20	Education	1	8,796	1	1	-	1
Cap21	Housing Solutions	4	5,021	3	3	2	2
Cap22	Emergency Reception Centre	3	7,517	1	3	1	3
Cap23	Critical Infrastructure resilience and restoration		-				
Cap24	Economic resiliency and recovery	1	1,038	-	-	-	-
Cap25	Animal health and welfare	1	474	-	1	-	1

3/4 of organisations or more
More than 1/4 to less than 3/4 of organisations
1/4 or less of organisations

5.2. Provincial/Local VSOs in EM and Fire Departments

As mentioned in Section 5, a total of twenty local, regional and provincial organizations operating directly or closely in EM were contacted (Table 2). Ten of them participated in the study. This section presents data collected from these ten organizations and one provincial chapter of a national voluntary organization with EM capabilities.

As the profile and the geographic reach of these organizations vary greatly, the data does not offer the same possibility for aggregation as the data on national VSOs in EM (Section 5.1). Also, as this dataset is not the outcome of any particular sampling methodology but mostly the result of referrals made by tier 1 and tier 2 National VSOs in EM, it should be taken as only indicative of the type of capabilities within VSOs in EM found at the local, regional or provincial level.

For fire departments, the Canadian Council of Fire Marshals and Fire Commissioners contacted relevant provincial and territorial bodies to have fire departments across Canada participate in the study. Despite efforts made, data was received only from nine fire departments, all located in Nova Scotia. Again, while indicative, this data is not representative of the capabilities and capacity of Canadian fire departments.

5.2.1. A diversity of Profiles, Capabilities and Capacities

Profile:

The eleven provincial and local VSOs in EM consisted of (Table 9):

- 7 local organizations of which one was a metropolitan organization with a catchment area of more than 1.6 million people
- 3 provincial organizations, with one of them being the provincial chapter of a national VSO in EM
- 1 Indigenous Council.
- The majority of them self-identified as NGOs 4 as CBOs, and two as FBOs

While their specific location is not reported in this study, the nine fire departments were from all over Nova Scotia.

Capacity:

- Provincial and Local VSOs in EM: While the number of affiliated volunteers varies from none to nearly 3,000, the majority of these organizations (8 out of 11) reported being able to mobilize spontaneous volunteers

- NS Fire Departments: The number of affiliated volunteers varies from 15 to 40, with the median being 30 volunteers. About half of them (4 out of 9) mobilize spontaneous volunteers (Table 10).

Capabilities:

- Together, provincial/local VSOs in EM offered 19 out of 25 capabilities

- The capabilities offered by at least a third of these organizations were:
    - Community resilience and preparedness (5 organizations)
    - Public information and warning
    - Emergency food/nutrition

- Most Provincial and Local VSOs in EM select a small number of capabilities (typically 1 or 2) except for the metropolitan CBO (8 capabilities), the provincial chapter of a national VSO in EM (9 capabilities) and the Indigenous Council (14 capabilities).

- No organizations report providing the following capabilities:

    - Mitigation (structural and non-structural)
    - Security and protection
    - Public Health and Emergency Medical Services
    - Supply Chain Management and Logistics
    - Housing Solutions
    - Economic Resilience and Recovery

Table 10 (Appendix 5) shows that together the nine fire departments selected a total of 14 capabilities. Aside from “Fire Management and Suppression”, most fire departments selected a small number of capabilities. The fire departments were the only group in this study that identified capacity for Mitigation (Structural and Non-Structural) which is selected by 3 out 9 fire departments.

5.2.2. The DM Cycle: Preparedness and Response

Graph 8 shows that 8 out of the 11 Provincial and Local VSOs in EM are involved in Preparedness and 8 in Response.

While all the fire departments are involved in response, 6 out 9 are also active in preparedness related activities (Graph 9).

5.2.3. Initiating Authority: Local Governance

Graph 10 shows that Provincial and Local VSOs in EM activate their capabilities primarily under their own initiative and leadership (10 out of 11 VSOs). While the local government had a limited role in terms of initiating authority for the National VSOs in EM, not surprisingly, the local government is a primary partner of Provincial and Local VSOs in EM.

Graph 11 shows that 7 out of 9 fire departments activate their capabilities at their own initiative. Half of the departments report following the local government and other sources (usually 911 dispatch) as source of authority.

5.2.4. Training and Certification

Graph 12 shows that the Provincial and Local VSOs in EM do conduct training sessions for their volunteers. However, similarly to what is observed with National VSOs in EM, certification remains limited.

All nine fire departments have both trained and certified volunteers (Graph 13).

6. Discussion and Recommendations

This study on understanding the capabilities and capabilities and capacity of the Canadian Voluntary Sector in EM has resulted in multiple valuable outcomes.

A first-ever comprehensive capability list to characterize the competencies of the voluntary sector and volunteers was developed as a result of collaboration between multiple Voluntary Sector Organizations in EM and DRDC. This capability list proved to be functional as Voluntary Organizations did not report any challenges in identifying their expertise against the list. Consequently, this study will result in methodological advances and increased knowledge that can be used for subsequent research on Canadian volunteerism in EM. The research also enabled the identification of the major voluntary organizations operating in EM at the national, provincial and local levels. And the assessment itself led to the following observations related to volunteer EM capabilities and capacity, and the state of resiliency in Canada.

6.1. Capabilities

A Comprehensive Set of Capabilities: Taken as a whole, the Canadian Voluntary Sector in EM demonstrates a comprehensive array of expertise related to EM. Indeed, based on the list of twenty-five EM capabilities that was developed to reflect the scope of involvement of the Canadian Voluntary Sector operating in EM (Section 3.1.1), the evidence suggests that together the National VSOs in EM have capacity in nearly all capabilities (22 capabilities out of 25).

The exception to this observation is in three capabilities: Mitigation (structural and non-structural); Fire Management and Suppression; and Critical Infrastructure Resilience and Restoration that the National VSOs in EM do not provide.

With respect to Fire Management and Suppression, it was assumed from the outset of this research that this would be a capability captured by local volunteer fire departments. This was in fact confirmed by all the fire departments that participated in this study. For capability in Mitigation and Critical Infrastructure Resilience, no Canadian voluntary organization specializing in civil engineering could be identified during the research process.

While these two capabilities are reported by a small number of Provincial and Local VSOs in EM and fire departments, given the limited participation of these two groups in the study, no conclusive assessment can be made about the availability of these capabilities in a volunteer capacity in Canada.

Recommendation 1

Mitigation (structural and non-structural) and Critical Infrastructure Resilience and Restoration were identified as important capabilities of Voluntary Organizations in EM.

The recommendation is that further investigation, ideally including representative participation of volunteer fire departments in Canada, should be conducted to confirm the hypothesis that Mitigation (structural and non-structural) and Critical Infrastructure Resilience and Restoration are capabilities that could be strengthened through volunteer capacity.

A High Degree of Segmentation and Specialization: National VSOs in EM generally operate in distinct capability niches. Indeed, the number of organizations per capability ranges from 1 to 4 organizations for the majority of capabilities. This finding of segmentation is confirmed by the fact that the majority of National VSOs in EM selected 4 or less capabilities. While this indicates limited overlap of capabilities, it does not inform as to the level of integration and complementarity among VSOs in EM.

Recommendation 2

As VSOs in EM evolve in distinct niches, the degree of integration and complementarity will be a key indicator of the ability of the Voluntary Sector in EM to deliver effective EM services and contribute to overall resilience.

The recommendation is to assess the current systems of relationships and governance, and identify possible needs and opportunities for greater collaboration and integration among VSOs in EM.

6.2. Capacity: Quantity, Quality, Retention

A Wealth of Volunteers: Volunteerism in EM seems reflective of the vibrancy of volunteerism in Canada (Section 4) as we can observe large numbers of volunteers by capability. In particular, the numbers of affiliated volunteers reported by the National VSOs in EM demonstrates large-scale capacity exceeding 50,000 affiliated volunteers for four capabilities (Supply Chain Management and Logistics, Emergency Food/Nutrition, Community Resilience and Preparedness, and Water, Sanitation, and Hygiene), and 10,000 affiliated volunteers in 11 other capabilities. Furthermore, National VSOs in EM can provide surge capacity, in at least one province or territory, for 18 capabilities out of the 22 selected. The case studies also confirm what has been observed in other research of the VSWG in that the Canadian Voluntary Sector in EM has robust systems and standards for the recruitment, engagement and deployment of volunteers, including spontaneous volunteers [8].

Continued Expansion and Recruitment: This view on capacity is modulated by National VSOs in EM's plans for capacity development related to expansion into new locations and to increase levels of recruitment of affiliated volunteers. Two-thirds of National VSOs in EM reported the intention to expand to new locations and two-thirds indicated their plans to recruit more affiliated volunteers. Because very few of these organizations provided information on the purpose or outcome of the additional recruitment, it cannot be inferred if this recruitment is to meet geographic expansion needs, invest in additional capabilities, or off-set volunteer attrition.

Training and Certification: Training of affiliated volunteers is very well established in Canadian Voluntary Organizations in EM with training material that is reviewed regularly and often. Certification is limited to capabilities requiring more advanced technical expertise and/or involving a high degree of liability such as Operational Communication; Security and Protection; Public Health and Emergency Medical Services; Search and Rescue; and Fire Management and Suppression.

Recommendation 3

Training and certification ensure that volunteers are available not only in quantity but also in quality. Volunteer retention is essential to guarantee that investments made in recruiting, training and certifying volunteers are amortized.

The recommendations are to:

a) Evaluate if more volunteer certification is needed in Canada

b) Conduct business cases on the ROI of training and certifying volunteers in relation to EM needs and retention rates.

6.3. Initiating Authority and Governance

As shown by data and case-studies, Canadian VSOs in EM and CSOs are self-directed and display a great sense of leadership. National, provincial and local VSOs in EM report activating their capabilities primarily at their own initiative. The government is also the privileged partner for VSOs in EM. While National VSOs in EM work in equal measure with F, P/T and local governments, Provincial and Local VSOs in EM, not surprisingly, have stronger ties with local governments.

Case studies also highlight the following three points:

1) Pre-established arrangements and agreements represent great advantages as these define roles and responsibilities prior to emergency events and help streamline and accelerate response. Such pre-

established arrangements are identified as necessary to manage risk within Priority 2 of Sendai Framework,

2) However, VSOs in EM operate under a variety of local and provincial conditions in terms of relationships and agreements with governments. Existing pre-established agreements may vary in specifying content and/or process, and, in some instances agreements become more precisely-defined at the time of the emergency

3) In the absence of pre-established arrangements and agreements local CSOs will "emerge", self organize and self-deploy as emergent groups made of individual volunteers would do through direct and/or social-media enabled networks.

Recommendation 4

The Sendai Framework calls for "strengthening disaster risk governance to manage risk".

The recommendation is to systematically review existing arrangements and coordination mechanisms at the F, P/T and local level to recommended how Canada can promote a stronger recognition and integration of VSOs in EM in governance structures including legislation, F, P/T frameworks, policies, guiding principles, and EM systems.

6.4. The DM Cycle and Whole-of-Society Resilience

Strength in Response, Weakness in DRR: When looking at selected capability in relation to the DM cycle phases, a very fluid view of the DM cycle emerges, reflecting the possibility for all capabilities to belong to multiple phases (Graph 3).

Notwithstanding this fluidity, National VSOs in EM overwhelmingly reported activating their capabilities in the response phase (14 out of 16 organizations reported providing at least one selected capability in response). Moreover, the current study shows that two-thirds of National VSOs in EM do not envision capacity development along any of the various phases of the DM Cycle (Section 5.1.3). This illustrates the systemic predisposition to engage the Voluntary Sector in EM in the response phase in a context where, as informed by national and international frameworks, engagement of the Voluntary Sector is increasingly considered more broadly to meet DRR goals. The current emphasis on response of National VSOs in EM would therefore appear to be misaligned with the whole-of-society resilience approach that is currently guiding the Canadian EM policy landscape.

This significant emphasis on response is nuanced to some extent by other observed facts within this study. Firstly, for capabilities that lean towards disaster response, some National VSOs in EM do tend to be active in the Prevention and Mitigation and Preparedness phases (but not for capabilities related to ESS). Secondly, Provincial and Local VSOs in EM (Section 5.2.2) report more activity in preparedness than National VSOs in EM. And thirdly, efforts in mitigation and preparedness that are illustrated in case study 1 (Syrian refugees) and

case study 2 (Alberta wildfires) also demonstrate how local CSOs (including Voluntary Organizations and non-profits) are operating on a daily basis in risk prevention and reduction.

Learning from Local CSOs: Indeed, by looking after food insecurities, family services, or psycho-social care, local CSOs devote their capabilities and resources towards addressing risks and building resilience in their communities on an on-going basis. CSO's participation in emergency response unfolds as a "surge mobilization" supported by networks that are loose and formalized, diverse and redundant. These CSOs, though not explicitly driven by an EM mandate, demonstrate that an investment in pre-established capabilities and capacities geared towards reducing social risks and enhancing the quality of life of communities ultimately translate into assets in emergency response. This observation underscores that prevention and preparedness are not peripheral but core components of disaster management and, in turn, lead to enhanced response mechanisms.

As policies and/or strategies become focused on assessing and building volunteer capabilities and capacity in EM, it is as important to appreciate, if whole-of-society resilience is to be achieved, that:

1) Robust CSOs linked together can complement – and complete – the work of national, provincial and local VSOs in EM, not just in terms of expertise and capacity but also it terms of DM cycle phases;

2) It becomes imperative to invest in preparedness and mitigation as a way to ensure effective response and rapid recovery.

Recommendation 5

Whole-of-society resilience is achieved by the successful and dynamic integration of diverse leaderships, partners, and capabilities through a continuum of interventions along the phases of the DM cycle.

The recommendations are to:

a) assess how VSOs in EM can expand their activities and engage volunteers to phases of the DM cycle other than the response phase

b) increase the understanding of the role, contribution and processes by which local CSOs are fostering whole-of-society resilience

c) strengthen linkages and integration between VSOs in EM and CSOs that operate in risk prevention and reduction at the community level in an ongoing manner

7. Conclusion

The goal of this study was to better understand the capabilities and capacity of the Canadian Voluntary Organizations in EM. The development of a capability list to characterize the competencies of the voluntary sector and volunteers represents both methodological advances and a significant contribution of knowledge to the field of EM in Canada. The study also identified and reached out to the primary national, provincial and local VSOs operating in EM in Canada.

In particular, this study provides a representative picture of the capabilities and capacity of the National VSOs in EM in Canada. It also offers indicative information through data and case studies on the capabilities and capacity of Provincial and Local VSOs in EM and, more broadly, of CSOs engaged at the community level in Canada. Moreover, the case studies illustrate the diversity of emergency situations occurring in Canada and the dynamics unfolding in EM between Voluntary and non-profit organizations, governmental agencies and the public.

This assessment allows us to conclude that Canada has a strong national Voluntary Sector in EM whose expertise includes most of the essential capabilities needed in emergency. Only the following two capabilities need to be further investigated to confirm an actual gap:

1) Mitigation (structural and non-structural)
2) Critical Infrastructure Resilience and Restoration

At the same time, data shows that Canadian VSOs in EM evolve in distinct capability niches. It will be important in the near future to examine systems of relationships in the EM landscape and assess if the level of integration needs to be optimized.

The strength of the Canadian voluntary sector in EM is not only based on its set of expertise but also on a strong base of affiliated volunteers and the prevalence of surge capacity. VSOs in EM support their volunteers with established training practices and robust spontaneous volunteer recruitment and management processes. Certification spans only a few capabilities and National VSOs in EM report plans to expand to new locations and recruit new affiliated volunteers. Within the scope of this study, the need for more certification, or issues related to volunteer retention cannot be confirmed. Subsequent research is needed to ascertain whether additional volunteer training and development is necessary and if volunteer retention is an issue for VSOs in EM.

It is however the pronounced focus on response that represents the most striking characteristic of the voluntary sector in EM and, perhaps more generally, the Canadian EM landscape. However, case studies such as the one on the Alberta wildfire evacuation highlight how CSOs that operate on an on-going basis to prevent and mitigate daily risks in their communities manage, through both loose and established networks, to expand their capacity and respond to emergencies as well. Such examples confirm that the premise of “whole-of-society” resilience and the approach proposed by the Sendai framework with its emphasis on engaging all of society and reducing risk represent significant benefits both in times of “peace” and in times of dealing with humanitarian emergencies.

In light of these findings and recognition of opportunities to advance governance systems that better recognize and integrate VSOs in EM, this study leads to the clear articulation of two important questions. How to enable the Voluntary Sector in EM so that it can take a greater stance in preparedness and mitigation? How can volunteers and the Voluntary Sector be adequately taken into account in the upcoming Canadian plan of action for the implementation of the Sendai Framework? Adding capabilities geared towards preparedness and mitigation, such as Structural Mitigation and Critical Infrastructure Resilience Capacity, to strengthen preparedness and mitigation is certainly an option. However, the present study indicates that VSOs in EM think about all of their existing capabilities in relation to all of the phases of the DM cycle. The current emphasis on response highlights that critical investments in widespread risk reduction and, as recommended by the Sendai framework, adequate governance structure, are indispensable in enabling the mobilization of volunteer capabilities and capacity towards the full DM cycle and are a prerequisite for Canada to achieve its whole-of-society agenda.

Therefore, in addition to the development of EM capabilities, it is ultimately the presence of governance structures that clearly define roles and responsibilities that facilitate the effective integration of Voluntary-based resources in national EM systems.

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9. Appendices

Appendix 1: Survey

Voluntary Sector Survey:

Understanding and Enabling Volunteers in Emergency Management

This Survey is a joint initiative of:

- The Voluntary Sector Working Group (VSWG) of Canada's Platform for Disaster Risk Reduction (Public Safety Canada)

- Defence Research and Development Canada, Centre for Security Science (DRDC, CSS)

The Canadian Red Cross is carrying-out this survey on behalf of the VSWG and DRDC, CSS.

Survey Objective

The primary purpose of this survey is to assess the use of volunteers within the Canadian Emergency Management (EM) system. Information from the survey will serve the following purposes:

- Expand the knowledge on current volunteer EM capabilities and capacity in Canada

- Develop evidence-based models, programs and policies for improved volunteer integration into the Canadian EM system

Your participation

You have been invited to participate in this survey because your organization has been identified as a relevant Voluntary Sector organization which can provide volunteer capacity in Emergency Management. Your perspective and input are essential.

Survey background

Disasters are increasing in frequency, severity and costs in Canada. In recent years there has been a greater focus on the role of volunteers to improve the long-term viability of the federal, provincial and territorial Emergency Management (EM) system, and to build the resilience of Canadian communities.

Volunteerism spirit moves many people to register with volunteer organizations, some of which focus on disaster response and some which focus on providing on-going support to their communities.

In fall 2014, Senior Officials Responsible for Emergency Management committed to explore the improved integration of volunteers into the Canadian EM system, as a potential solution to Canada's escalating disaster risk exposure and costs. Additionally, this approach directly supports the development of community resilience by training and empowering communities to take a more proactive role in risk reduction and EM.

Survey description

The survey aims to assess Voluntary Sector organizations' capacity against a set of capabilities identified in consultation with subject matter experts from the Voluntary Sector and governmental agencies.

The survey contains the following sections:

- Section 1: Contact information

- Section 2: Your organization's capabilities from a list of **25 capabilities**

  For each capability, you will be asked:

Section 2.1	At what phase(s) of the disaster management (DM) cycle the capability is activated (prevention, preparedness, response, recovery)
Section 2.2	Who is the initiating authority
Section 2.3	In what geographic location(s) the capability is available (province, regions, First Nations reserves)
Section 2.4	How much of your workforce (employees and affiliated volunteers) residing in identified geographic locations can provide services related to the capability (in conjunction with Section 2.3)
Section 2.5	What training & development standards and processes are in place
Section 2.6	Your organization's current plans for capacity development
Section 2.7	A short example of when and how the capability was activated within the last three years

Instructions

The VSWG recognizes that, for those organizations who conduct numerous activities in emergency management, this survey will involve an important time commitment. We urge you to invest this time to help ensure that this survey provides critical data for emergency planning in Canada.

It is recommended that you:

- print a blank copy of the survey to visualize information that you will be asked for;
- consider having the survey filled by your regional or local offices if you are a nationally or provincially-based organization as it may be easier to gather the requested information at the regional or local level
- you gather all the necessary information beforehand, in particular regarding your organization's presence in various geographic locations, workforce, and development and training resources in place for each of your organization's capabilities.

Please use the 'Back' and 'Next' buttons at the bottom of the page to navigate within the survey, and **not** the 'move back' or 'move forward' buttons of your browser.

You can save and return to the survey later by clicking on the 'Save and continue later' button at the bottom of the page.

You can review your responses in PDF and MS Word format at the completion of the survey by clicking on the "Review Responses PDF/Word" on the very last page.

Time Commitment

Once the information is gathered, you should plan for **20 minutes** per capability to fill the survey. You can save and exit the survey at any time and return to it later. Thank you very much for your time!

Confidentiality

- The information gathered via this process will be used for purposes of analysis and future consultation.
- Results that identify you, and others, by name will be kept within the team administering this study.

- For reporting purposes no individuals or organizations will be identified and information will be reported in aggregate form.

- A small number of organizations will be contacted by the research team after the survey and asked if they wish to contribute to in-depth case studies in which their names may appear.

- Any sensitive and/or classified information will be handled accordingly.

- The use and publication of information pertaining to any individual partners within this study will require the prior approval and review by said partner.

- Based on information received through the survey, organizations may be contacted in the future for the development of EM initiatives and programs.

Questions?

Please send an email to vswgem@redcross.ca or call 1-613-740-4906 if you have any questions.

Glossary

Term	Definition
Affiliated volunteer	The term “affiliated volunteer”, or "core volunteer", refers to an individual who is part of an organization’s roster of volunteers. Affiliated volunteers are pre-identified and may have received orientation or training prior to any disaster response mobilization.
Civil Society	The term Civil Society refers to the wide array of non-governmental and not-for-profit organizations that have a presence in public life, expressing the interests and values of their members or others, based on ethical, cultural, political, scientific, religious or philanthropic considerations. Civil Society Organizations (CSOs) therefore refer to a wide of array of organizations: community groups, non-governmental organizations (NGOs), labor unions, indigenous groups, charitable organizations, faith-based organizations, professional associations, and foundations.
Disaster Management Cycle	The Disaster Management cycle refers to the ongoing process by which governments, businesses, and civil society plan for and reduce the impact of disasters, react during and immediately following a disaster, and take steps to recover after a disaster has occurred.
Early Recovery	Early recovery attempts to support community coping mechanisms beyond immediate life-saving initiatives implemented during the emergency phase and aims to support the restoration of basic services and minimize longer term dependency on outside assistance. This would include assisting communities with economic recovery, health, water, sanitation, and housing amongst other sectors.
Employee	A person working in a paid capacity for your organization
Immediate Response	Comprises activities occurring from the onset of the disaster and focuses on lifesaving, integration of coordination, logistics, and setting the conditions for a sustained, coordinated response and recovery effort. Objectives in the immediate response phase include: saving lives, reducing immediate threats to life, public health and safety, providing emergency social services and mass care, restoration of critical facilities, communication, utilities and transportation infrastructure, situational understanding, public information, setting the conditions for sustained response and recovery.
Preparedness	To be ready to respond to a disaster and manage its consequences through measures taken prior to an event, for example emergency response plans, mutual assistance agreements, resource inventories and training, equipment and exercise programs.
Prevention and Mitigation	To eliminate or reduce the risks of disasters in order to protect lives, property, the environment, and reduce economic disruption. Prevention/mitigation includes structural mitigative measures (e.g. construction of floodways and dykes) and non-structural mitigative measures (e.g. building codes, land-use planning, and insurance incentives). Prevention and mitigation may be considered independently or one may include the other.
Recovery	To repair or restore conditions to an acceptable level through measures taken after a disaster, for example return of evacuees, trauma counseling, reconstruction, economic impact studies and financial assistance. There is a strong relationship between long-term sustainable recovery and prevention and mitigation of future disasters. Recovery efforts should be conducted with a view towards disaster risk reduction.

Term	Definition
Long-Term Recovery	To restore conditions to support long-term sustainable recovery and overall development with a view towards community resiliency and disaster risk reduction.
Residing employee/affiliated volunteer	An employee or affiliated volunteer who is physically located in a given geographic location.
Response	To act during or immediately before or after a disaster to manage its consequences through, for example, emergency public communication, search and rescue, emergency medical assistance and evacuation to minimize suffering and losses associated with disasters.
Spontaneous volunteer	The terms “spontaneous”, “episodic” or “walk-in” volunteer refer to people offering their assistance to Voluntary Organizations without having been previously affiliated, prepared, or trained by those organizations. This offer often comes at the time of a specific event (e.g. an emergency).
Sustained Response	Coordination with partners and stakeholders is now established. Lifesaving services, public information, and work related to critical facilities and infrastructure are still required and are provided for an extended period of time ranging from several weeks to months.

Section 1: Contact information

- Organization name 1 _____
- Organization name 2 (division/branch/department, etc. if applicable) _____
- Organization address
    - Address 1 – Number, Street _____
    - Address 2 –Suite _____
    - Address 3 – City _____
    - Address 4 – Province _____
    - Address 5 – Postal Code _____

- Organization type: Please select the category(ies) that describe your organization

☐ Non-governmental organization
☐ Faith-based organization
☐ Community-based organization
☐ Civil society organization
☐ Other, please specify: _____

- Respondent Information
    - Name _____
    - Title _____
    - Phone number _____
    - Email _____

abilities

of capabilities, and then select the capabilities that apply most to your organization from the check list below.

u try to limit your selection to ten (10) capabilities. For each capability you will be asked to provide information workforce and training resources.

	Description
	To conduct a process including one or more of the following activities: a) hazard identification; b) risk assessment and/or analysis; c) vulnerability assessment and/or analysis; and d) risk and impact evaluation (may include setting risk tolerance criteria.)
e and	To enable the recognition, understanding, communication of, and planning for risk and empower individuals and communities to make informed risk management decisions necessary to adapt to, withstand, and quickly recover from future incidents. Typically, community resilience and preparedness is based on risk assessment activities. Examples: initiate a participatory process to help a community understand a risk and select mitigation measures; establish community emergency stockpiles.
and	To take concrete actions to reduce the impact of disasters in order to protect lives, property and the environment, and to reduce economic disruption. Mitigation includes structural mitigative measures (e.g. construction of floodways and dykes) and non-structural mitigative measures (e.g. building codes, land-use planning and insurance incentives.)
cy g	To implement a process in the community through which emergency management (EM) plans, policies and procedures are developed, validated and maintained. As defined in the Emergency Management Act, an EM plan is a program, arrangement or other measure for dealing with an emergency by the civil population, or for dealing with a civil emergency by the Canadian Forces in accordance with the National Defence Act. Community EM Planning can be a component of a Community Resilience and Preparedness strategy or a stand-alone component focused strictly on EM.
d	To deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to relay information regarding an emergency, threat, or hazard, as well as the actions being taken and the assistance being made available. An example could be gathering and providing emergency related information via social media to the general public.

#	Capability	Description
☐	**Disaster Assessment and Situational Reporting**	To provide all decision makers involved in EM with current and decision-relevant information regarding an emergency situation including the nature and extent of the threat or hazard, issues identification, and immediate and future response needs. Example: teams using mobile data technology to collect and communicate data on the location and level of damage, the number of people affected and emergency needs immediately after a natural disaster and throughout response operations.
☐	**Operational Coordination in Emergency**	To establish and maintain a unified and coordinated operational structure and process that integrates all critical stakeholders and supports the execution of core capabilities during an emergency. Examples: the implementation and maintenance of the Incident Command System method to operations management; at the international level, the purpose of the United Nations' Office for the Coordination of Humanitarian Affairs (OCHA) is to bring together humanitarian agencies to deliver a coordinated response.
☐	**Operational Communication in Emergency**	To support the capacity for timely communications in support of security, situational awareness, and operations in emergency response. Example: Amateur Radio Emergency Services in the US assesses communication needs in emergency and provides required communication services in support of response coordination and public safety.
☐	**Security and Protection**	To support security and safety actions to reduce risk, and avoid, prepare for and respond to an emergency situation. These actions can include the development of security plans; the identification and protection from threats and hazards; forensic analysis; access control and identity verification; cybersecurity; individual rights protection; provision of security measures.
☐	**Fire Management and Suppression**	To provide structural, wildland, and specialized firefighting capabilities to manage and suppress fires of all types, kinds, and complexities while protecting the lives, property, and the environment in the affected area.
☐	**Public Health and Emergency Medical Services**	To provide lifesaving medical treatment and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations. To conduct appropriate measures to maintain and/or improve the health of individuals. To provide fatality management services, including decedent remains recovery and victim identification. To restore and improve health and social services capabilities to promote health (including behavioral health) and well-being of the community.
☐	**Search and Rescue Operations**	To support, coordinate, develop, inform, promote and implement search, rescue and emergency response with the underlying principle of saving lives.
☐	**Supply Chain management and Logistics**	To prepare for the continuity or restore impacted supply chains and synchronize logistics capabilities to enable the delivery of essential commodities, equipment, and services in support of impacted communities and survivors.
☐	**Transportation**	To provide transportation, including accessible transportation services, for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.
☐	**Emergency Food/Nutrition**	To provide food or meals to persons without food or food preparation facilities, emergency workers, and disaster volunteers during an emergency situation.
☐	**Emergency Shelter/Lodging**	To provide arrangements for safe, temporary lodging for people left homeless or evacuated during an emergency situation.
☐	**Emergency Clothing & Sundries**	To provide clothing or emergency covering and sundries during an emergency situation.

#	Capability	Description
☐	**Family Services**	To deliver services related to family reunification, temporary childcare, care for dependant seniors and people with disability, psycho-social support during an emergency or disaster situation.
☐	**Water, Sanitation, Hygiene**	To provide sufficient quantities of safe water, arrangement of basic sanitation, promotion of good hygiene behaviour in emergency situations. Interventions may range from rapid and limited to comprehensive and long-term. Example: Providing hygienic sanitation facilities, protecting water supplies from contamination, providing potable water, distribution of water purification tablets/kits, and education and awareness regarding proper hygienic habits in emergency or disaster situations.
☐	**Education**	To prepare or provide for the continuity of education services for children during an emergency situation. This may include the identification or provision of safe school locations, curricula and teaching materials, building teachers capacity, engaging governmental, NGOs and community partners to enable continuity of education.
☐	**Housing Solutions**	To implement housing solutions (longer term, distinct from emergency lodging) that effectively support the needs of the whole community and contribute to its sustainability and resilience. Example: rehabilitation and reconstruction of destroyed and damaged housing, whenever feasible, and development of other new accessible, permanent housing options.
☐	**Emergency Reception Centre**	To set up a one-stop service site, where evacuees are received and in which ALL six of the following Emergency Social Services are provided: reception and information, family reunification, emergency clothing, emergency lodging, emergency food, and personal services (first aid, temporary care for unattended children, dependent elderly or disabled person, material assistance, and psycho-social support.)
☐	**Critical Infrastructure resilience and restoration**	To provide appropriate combination of security measures, business continuity practices and emergency management planning to ensure adequate response procedures are in place to deal with unforeseen disruptions and natural disasters and to ensure the continuation of essential services. Critical infrastructure refers to processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of the public and the effective functioning of government. Example: earthquake retrofitting within disaster-resilient hospitals programs.
☐	**Economic resiliency and recovery**	To enable the return of economic and business activities to a healthy state, including the development of new business and employment opportunities that result in an economically viable community. Example: The Economic Disaster Recovery Project implemented by the Economic Developers Alberta (EDA) and the British Columbia Economic Development Association (BCEDA) after the 2013 Alberta flood.
☐	**Animal health and welfare**	To assist in responding to animal health emergencies such as animal disease outbreaks or to lessen the impact of a civil emergency on animal populations.

Section 2.1: Disaster Management Cycle

Question: In what phase of the disaster management cycle can your organization activate your capability(ies)? Select all that apply.

Disaster Management Phase			
☐	**Prevention and Mitigation**		To eliminate or reduce the risks of disasters in order to protect lives, property, the environment, and reduce economic disruption. Prevention/mitigation includes structural mitigative measures (e.g. construction of floodways and dykes) and non-structural mitigative measures (e.g. building codes, land-use planning, and insurance incentives). Prevention and mitigation may be considered independently or one may include the other.
☐	**Preparedness**		To be ready to respond to a disaster and manage its consequences through measures taken prior to an event, for example emergency response plans, mutual assistance agreements, resource inventories and training, equipment and exercise programs.
☐	**Response**		To act during or immediately before or after a disaster to manage its consequences through, for example, emergency public communication, search and rescue, emergency medical assistance and evacuation to minimize suffering and losses associated with disasters.
	☐	**Immediate Response**	Comprises activities occurring from the onset of the disaster and focuses on lifesaving, integration of coordination, logistics, and setting the conditions for a sustained, coordinated response and recovery effort. Objectives in the immediate response phase include: saving lives, reducing immediate threats to life, public health and safety, providing emergency social services and mass care, restoration of critical facilities, communication, utilities and transportation infrastructure, situational understanding, public information, setting the conditions for sustained response and recovery.
	☐	**Sustained Response**	Coordination with partners and stakeholders is now established. Lifesaving services, public information, and work related to critical facilities and infrastructure are still required and provided for an extended period of time ranging from several weeks to months.
☐	**Recovery**		To repair or restore conditions to an acceptable level through measures taken after a disaster, for example return of evacuees, trauma counseling, reconstruction, economic impact studies and financial assistance. There is a strong relationship between long-term sustainable recovery and prevention and mitigation of future disasters. Recovery efforts should be conducted with a view towards disaster risk reduction.
	☐	**Early Recovery**	Early recovery attempts to support community coping mechanisms beyond immediate life-saving initiatives implemented during the emergency phase and aims to support the restoration of basic services and minimize longer term dependency on outside assistance. This would include assisting communities with economic recovery, health, water, sanitation, and housing amongst other sectors.
	☐	**Recovery and Long-Term Recovery**	To restore conditions to support long-term sustainable recovery and overall development with a view towards community resiliency and disaster risk reduction.

Section 2.2: Initiating Authority

Who has the authority to activate your organization to carry out activities related to your capability(ies) ?

☐	Initiated by your organization's leadership		
☐	Initiated at the request of government(s)		
	☐	Local government	
	☐	Provincial government	
	☐	Federal government	
☐	Initiated by an external non-governmental organization		Please provide details: _____
☐	Initiated in coordination with partners/stakeholders		Please provide details: _____
☐	Other		Please provide details: _____

Sections 2.3 – 2.4: Geographic Location and Workforce

Select all the provinces where your organization can provide services related to your capability(ies).

Does your organization have the possibility to mobilize Spontaneous Volunteers to provide services related to your capability(ies)?

☐	Yes, our organization has the possibility to mobilize spontaneous volunteers
☐	No, our organization does not have the possibility to mobilize spontaneous volunteers
☐	Our organization does not recruit spontaneous volunteers

Select all the applicable regions, where your organization can provide services related to your capability(ies).

Provide the number of employees and affiliated volunteers residing in each location and readily available to fulfill services related to your capability(ies).

	Provinces/Territories		Regions	N Staff	N Affiliated Volunteers
☐	**Alberta**				
		☐	Calgary Region		
		☐	Calgary Region - First Nations Reserves		
		☐	Edmonton Region		
		☐	Edmonton Region - First Nations Reserves		
		☐	Northern Alberta		
		☐	Northern Alberta -First Nations Reserves		
		☐	Red Deer Region		
		☐	Red Deer Region - First Nations Reserves		
		☐	Southern Alberta		
		☐	Southern Alberta - First Nations Reserves		
☐	**British Columbia**				
		☐	Central British Columbia		
		☐	Central British Columbia - First Nations Reserves		
		☐	Kootenay Region		
		☐	Kootenay Region - First Nations Reserves		
		☐	North Coast		
		☐	North Coast - First Nations Reserves		
		☐	Northeastern British Columbia		
		☐	Northeastern British Columbia - First Nations Reserves		
		☐	Northern Okanagan / Shuswap		

	Provinces/Territories		Regions	N Staff	N Affiliated Volunteers
		☐	Northern Okanagan / Shuswap - First Nations Reserves		
		☐	South Coast		
		☐	South Coast - First Nations Reserves		
		☐	Southern Gulf Island		
		☐	Southern Gulf Island - First Nations Reserves		
		☐	Southern Okanagan Valley		
		☐	Southern Okanagan Valley - First Nations Reserves		
		☐	Vancouver Island		
		☐	Vancouver Island - First Nations Reserves		
		☐	Vancouver Region		
		☐	Vancouver Region - First Nations Reserves		
☐	**Manitoba**				
		☐	Winnipeg Region		
		☐	Winnipeg Region - First Nations Reserves		
		☐	Central and Northern Manitoba		
		☐	Central and Northern Manitoba - First Nations Reserves		
		☐	Southern Manitoba		
		☐	Southern Manitoba - First Nations Reserves		
☐	**New Brunwick**				
		☐	Bathurst Region		
		☐	Bathurst Region - First Nations Reserves		
		☐	Edmundston Region		
		☐	Edmundston Region - First Nations Reserves		
		☐	Fredericton Region		
		☐	Fredericton Region - First Nations Reserves		
		☐	Moncton Region		
		☐	Moncton Region - First Nations Reserves		
		☐	Saint John Region		
		☐	Saint John Region - First Nations Reserves		
☐	**Newfoundland and Labrador**				
		☐	Avalon Peninsula		
		☐	Avalon Peninsula - First Nations Reserves		
		☐	Central Newfoundland		
		☐	Central Newfoundland - First Nations Reserves		
		☐	Labrador		
		☐	Labrador - First Nations Reserves		
		☐	Northern Newfoundland		
		☐	Northern Newfoundland - First Nations Reserves		
		☐	Southern Newfoundland		
		☐	Southern Newfoundland - First Nations Reserves		
		☐	Western Newfoundland		
		☐	Western Newfoundland - First Nations Reserves		
☐	**Northwest Territories**				
		☐	Deh Cho Region		
		☐	Deh Cho Region - First Nations Reserves		
		☐	Gwich'in		
		☐	Gwich'in - First Nations Reserves		
		☐	Inuvialuit		

	Provinces/Territories		Regions	N Staff	N Affiliated Volunteers
		☐	Inuvialuit - First Nations Reserves		
		☐	Inuvik Region		
		☐	Inuvik Region - First Nations Reserves		
		☐	North Slave Region		
		☐	North Slave Region - First Nations Reserves		
		☐	Sahtu Region		
		☐	Sahtu Region - First Nations Reserves		
		☐	South Slave Region		
		☐	South Slave Region - First Nations Reserves		
☐	**Nova Scotia**				
		☐	Cape Breton		
		☐	Cape Breton - First Nations Reserves		
		☐	Mainland		
		☐	Mainland - First Nations Reserves		
☐	**Nunavut**				
		☐	Baffin Region		
		☐	Kitikmeot Region		
		☐	Kivalliq Region		
☐	**Ontario**				
		☐	Central Ontario		
		☐	Central Ontario - First Nations Reserves		
		☐	Eastern Ontario		
		☐	Eastern Ontario - First Nations Reserves		
		☐	Georgian / Huron / Simcoe Region		
		☐	Georgian / Huron / Simcoe Region - First Nations Reserves		
		☐	Greater Toronto Area		
		☐	Greater Toronto Area - First Nations Reserves		
		☐	Hamilton / Niagara		
		☐	Hamilton / Niagara - First Nations Reserves		
		☐	National Capital Region		
		☐	National Capital Region - First Nations Reserves		
		☐	Northern Ontario		
		☐	Northern Ontario - First Nations Reserves		
		☐	Northwestern Ontario		
		☐	Northwestern Ontario - First Nations Reserves		
		☐	Southern - Western Ontario		
		☐	Southern - Western Ontario - First Nations Reserves		
☐	**Prince Edwards Island**				
		☐	Prince Edward Island Region		
		☐	Prince Edward Island Region - First Nations Reserves		
☐	**Quebec**				
		☐	Abitibi-Témiscamingue		
		☐	Abitibi-Témiscamingue - Réserves autochtones		
		☐	Bas-Saint-Laurent		
		☐	Bas-Saint-Laurent - Réserves autochtones		
		☐	Capitale-Nationale		
		☐	Capitale-Nationale - Réserves autochtones		

	Provinces/Territories		Regions	N Staff	N Affiliated Volunteers
		☐	Centre-du-Québec		
		☐	Centre-du-Québec - Réserves autochtones		
		☐	Chaudière-Appalaches		
		☐	Chaudière-Appalaches - Réserves autochtones		
		☐	Côte-Nord		
		☐	Côte-Nord - Réserves autochtones		
		☐	Estrie		
		☐	Estrie - Réserves autochtones		
		☐	Gaspésie–Îles-de-la-Madeleine		
		☐	Gaspésie–Îles-de-la-Madeleine - Réserves autochtones		
		☐	Lanaudière		
		☐	Lanaudière - Réserves autochtones		
		☐	Laurentides		
		☐	Laurentides - Réserves autochtones		
		☐	Laval		
		☐	Laval - Réserves autochtones		
		☐	Mauricie		
		☐	Mauricie - Réserves autochtones		
		☐	Montérégie		
		☐	Montérégie - Réserves autochtones		
		☐	Montréal		
		☐	Montréal - Réserves autochtones		
		☐	Nord-du-Québec		
		☐	Nord-du-Québec - Réserves autochtones		
		☐	Outaouais		
		☐	Outaouais - Réserves autochtones		
		☐	Saguenay–Lac-Saint-Jean		
		☐	Saguenay–Lac-Saint-Jean - Réserves autochtones		
☐	**Saskatchewan**				
		☐	Northern Saskatchewan		
		☐	Northern Saskatchewan - First Nations Reserves		
		☐	Southern Saskatchewan		
		☐	Southern Saskatchewan - First Nations Reserves		
☐	**Yukon**				
		☐	Northern Yukon		
		☐	Northern Yukon - First Nations Reserves		
		☐	Southern Yukon		
		☐	Southern Yukon - First Nations Reserves		

Section 2.5: Training & Development Standards and Processes

Does your organization have training materials (including print, audio-visual and digital) in place related to **your capability(ies)**? This material can be created by your organization or may come from an external source.

- ☐ Yes
- ☐ No
- ☐ Other, comment _____

If yes, does your organization review and update existing training materials related to **your capability(ies)**?

- ☐ Yes, please specify how often (e.g. yearly, monthly) _____
- ☐ No
- ☐ Not applicable, comment _____

Does your organization provide training to your employees or volunteers related to **your capability(ies)**?

- ☐ Yes
- ☐ No
- ☐ Other, comment _____

Does your organization have a certification process in place related to **your capability(ies)**?

- ☐ Yes
  - ☐ Internal certification process
  - ☐ External certification process
- ☐ No
- ☐ Other, comment _____

Section 2.6: Capacity Development

- Does your organization have current strategy and plans to expand your activities related to **your capability(ies)** to other phases of the disaster management cycle in the next three years?

    ☐ Yes,
    If yes, please specify which phases:

☐	**Prevention and Mitigation**	
☐	**Preparedness**	
☐	**Response**	
	☐	**Immediate Response**
	☐	**Sustained Response**
☐	**Recovery**	
	☐	**Early Recovery**
	☐	**Recovery and Long-Term Recovery**

    ☐ No

- In the next three years, does your organization plan to expand your activities related to **your capability(ies)** to other locations?

    ☐ Yes, please list these locations (Provinces, Regions)

    ☐ No

- In the next three years, does your organization plan to recruit, in relation to **your capability(ies)**

    ☐ Yes

    ☐ More employees , comment _____
    ☐ More affiliated volunteers , comment _____

    ☐ No

Section 2.7: Example

If applicable, please provide an example from the last three years in which your organization used **your capability(ies)**:

□ Not Applicable

Example of **your capability(ies)**:

Event_____

Dates: From _____ To _____

Location_____

Number of employees involved _____

Number of affiliated volunteers involved _____

Number of spontaneous volunteers involved _____

Description: _____

If you have a document you wish to share about this example (e.g. report, article), please attach it to the email with the completed form.

Closing:

Thank you very much for completing this survey!

Please let us know if there are additional organizations that you feel should complete this survey:

Organizations	Contact information

You will be notified when the study is complete and final reports are available.

Again, thank you very much for your time.

Please send the completed survey to vswgem@redcross.ca.

Appendix 2: Capability List Design

Mapping of UN Clusters, Emergency Social Services (ESS) and FEMA Capabilties

UN Clusters	ESS	FEMA Core Capabilities
		1 - Emergency Management Planning
	Information	2 - Public Information And Warning
Coordination / Management		3 - Operational Coordination
		4 - Forensics and Attribution
		5 - Intelligence and Information Sharing
Protection		6 - Interdiction and Disruption
		7 - Screening, Search, and Detection
		8 - Access Control and Identity Verification
		9 - Cybersecurity
		10 - Physical Protective Measures
		11 - Risk Management for Protection Programs and Activities
		12 - Supply Chain Integrity and Security
		13 - Community Resilience
		14 - Long-term Vulnerability Reduction
		15 - Risk and Disaster Resilience Assessment
		16 - Threats and Hazards Identification
Logistics	Transportation Services	17 - Critical Transportation
		18 - Environmental Response/Health and Safety
		19 - Fatality Management Services
		20 - Fire Management and Suppression
Emergency Telecommunications		21 - Infrastructure Systems
		22 - Logistics and Supply Chain Management
Emergency Shelter and NFI Early Recovery Food Security Nutrition Water Sanitation Hygiene Education	Emergency food Emg. Lodging Emg. Clothing Emotional support First aid Family reunification Child care services Multicultural services Volunteer services Pet services	23 - Mass Care Services
		24 - Mass Search and Rescue Operations
		25 - On-scene Security, Protection, and Law Enforcement
		26 - Operational Communications
Health		27 - Public Health, Healthcare, and Emergency Medical Services
		28 - Situational Assessment
		29 - Economic Recovery
		30 - Health and Social Services Restoration
		31 - Housing (Recovery)
		32 - Natural and Cultural Resources (Recovery)

Appendix 3: List of Capabilities

Canadian
US
Combined (Canadian, US) or other

#	Capability	Description	Source (Adapted)
1	**Risk Assessment**	To conduct a process including one or more of the following activities: a) hazard identification; b) risk assessment and/or analysis; c) vulnerability assessment and/or analysis; and d) risk and impact evaluation (may include setting risk tolerance criteria.)	Translation Bureau, Emergency Management Vocabulary, Government of Canada, 2012
2	**Community Resilience and Preparedness**	To enable the recognition, understanding, communication of, and planning for risk and empower individuals and communities to make informed risk management decisions necessary to adapt to, withstand, and quickly recover from future incidents. Typically, community resilience and preparedness is based on risk assessment activities. Examples: initiate a participatory process to help a community understand a risk and select mitigation measures; establish community emergency stockpiles.	FEMA - Capabilities
3	**Mitigation (Structural and non-structural)**	To take concrete actions to reduce the impact of disasters in order to protect lives, property and the environment, and to reduce economic disruption. Mitigation includes structural mitigative measures (e.g. construction of floodways and dykes) and non-structural mitigative measures (e.g. building codes, land-use planning and insurance incentives.)	Translation Bureau, Emergency Management Vocabulary, Government of Canada, 2012
4	**Community Emergency Management Planning**	To implement a process in the community through which emergency management (EM) plans, policies and procedures are developed, validated and maintained. As defined in the Emergency Management Act, an EM plan is a program, arrangement or other measure for dealing with an emergency by the civil population, or for dealing with a civil emergency by the Canadian Forces in accordance with the National Defence Act. Community EM Planning can be a component of a Community Resilience and Preparedness strategy or a stand-alone component focused strictly on EM.	Translation Bureau, Emergency Management Vocabulary, Government of Canada, 2012
5	**Public Information and Warning**	To deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to relay information regarding an emergency, threat, or hazard, as well as the actions being taken and the assistance being made available. An example could be gathering and providing emergency related information via social media to the general public.	FEMA - Capabilities
6	**Disaster Assessment and Situational Reporting**	To provide all decision makers involved in EM with current and decision-relevant information regarding an emergency situation including the nature and extent of the threat or hazard, issues identification, and immediate and future response needs. Example: teams using mobile data technology to collect and communicate data on the location and level of damage, the number of	Combined: Translation Bureau, Emergency Management Vocabulary, Government of Canada,

#	Capability	Description	Source (Adapted)
		people affected and emergency needs immediately after a natural disaster and throughout response operations.	2012; FEMA - Capabilities
7	**Operational Coordination in Emergency**	To establish and maintain a unified and coordinated operational structure and process that integrates all critical stakeholders and supports the execution of core capabilities during an emergency. Examples: the implementation and maintenance of the Incident Command System method to operations management; at the international level, the purpose of the United Nations' Office for the Coordination of Humanitarian Affairs (OCHA) is to bring together humanitarian agencies to deliver a coordinated response.	FEMA - Capabilities
8	**Operational Communication in Emergency**	To support the capacity for timely communications in support of security, situational awareness, and operations in emergency response. Example: Amateur Radio Emergency Services in the US assesses communication needs in emergency and provides required communication services in support of response coordination and public safety.	FEMA - Capabilities
9	**Security and Protection**	To support security and safety actions to reduce risk, and avoid, prepare for and respond to an emergency situation. These actions can include the development of security plans; the identification and protection from threats and hazards; forensic analysis; access control and identity verification; cybersecurity; individual rights protection; provision of security measures.	Combined: FEMA - Capabilities; Global Protection Cluster
10	**Fire Management and Suppression**	To provide structural, wildland, and specialized firefighting capabilities to manage and suppress fires of all types, kinds, and complexities while protecting the lives, property, and the environment in the affected area.	FEMA - Capabilities
11	**Public Health and Emergency Medical Services**	To provide lifesaving medical treatment and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations. To conduct appropriate measures to maintain and/or improve the health of individuals. To provide fatality management services, including decedent remains recovery and victim identification. To restore and improve health and social services capabilities to promote health (including behavioral health) and well-being of the community.	FEMA - Capabilities
12	**Search and Rescue Operations**	To support, coordinate, develop, inform, promote and implement search, rescue and emergency response with the underlying principle of saving lives.	SARVAC
13	**Supply Chain management and Logistics**	To prepare for the continuity or restore impacted supply chains and synchronize logistics capabilities to enable the delivery of essential commodities, equipment, and services in support of impacted communities and survivors.	FEMA - Capabilities
14	**Transportation**	To provide transportation, including accessible transportation services, for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.	FEMA - Capabilities

#	Capability	Description	Source (Adapted)
15	**Emergency Food/Nutrition**	To provide food or meals to persons without food or food preparation facilities, emergency workers, and disaster volunteers during an emergency situation.	**Combined: Public Health Agency of Canada; Government of Manitoba - Family Services**
16	**Emergency Shelter/Lodging**	To provide arrangements for safe, temporary lodging for people left homeless or evacuated during an emergency situation.	**Public Health Agency Canada**
17	**Emergency Clothing & Sundries**	To provide clothing or emergency covering and sundries during an emergency situation.	**Public Health Agency Canada**
18	**Family Services**	To deliver services related to family reunification, temporary childcare, care for dependant seniors and people with disability, psycho-social support during an emergency or disaster situation.	**Combined: Public Health Agency of Canada; Canadian Red Cross**
19	**Water, Sanitation, Hygiene**	To provide sufficient quantities of safe water, arrangement of basic sanitation, promotion of good hygiene behaviour in emergency situations. Interventions may range from rapid and limited to comprehensive and long-term. Example: Providing hygienic sanitation facilities, protecting water supplies from contamination, providing potable water, distribution of water purification tablets/kits, and education and awareness regarding proper hygienic habits in emergency or disaster situations.	**Humanitarian Coalition**
20	**Education**	To prepare or provide for the continuity of education services for children during an emergency situation. This may include the identification or provision of safe school locations, curricula and teaching materials, building teachers capacity, engaging governmental, NGOs and community partners to enable continuity of education.	**Save the Children: Education in Emergencies (Adapted)**
21	**Housing Solutions**	To implement housing solutions (longer term, distinct from emergency lodging) that effectively support the needs of the whole community and contribute to its sustainability and resilience. Example: rehabilitation and reconstruction of destroyed and damaged housing, whenever feasible, and development of other new accessible, permanent housing options.	**FEMA - Capabilities**
22	**Emergency Reception Centre**	To set up a one-stop service site, where evacuees are received and in which ALL six of the following Emergency Social Services are provided: reception and information, family reunification, emergency clothing, emergency lodging, emergency food, and personal services (first aid, temporary care for unattended children, dependent elderly or disabled person, material assistance, and psycho-social support.)	**Canadian Red Cross**
23	**Critical Infrastructure resilience and restoration**	To provide appropriate combination of security measures, business continuity practices and emergency management planning to ensure adequate response procedures are in place to deal with unforeseen disruptions and natural disasters and to ensure the continuation of essential services. Critical infrastructure refers to processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of the public and the effective functioning of government. Example: earthquake retrofitting within disaster-resilient hospitals programs.	**Public Safety Canada**

#	Capability	Description	Source (Adapted)
24	**Economic resiliency and recovery**	To enable the return of economic and business activities to a healthy state, including the development of new business and employment opportunities that result in an economically viable community. Example: The Economic Disaster Recovery Project implemented by the Economic Developers Alberta (EDA) and the British Columbia Economic Development Association (BCEDA) after the 2013 Alberta flood.	**FEMA - Capabilities**
25	**Animal health and welfare**	To assist in responding to animal health emergencies such as animal disease outbreaks or to lessen the impact of a civil emergency on animal populations.	**Canadian Veterinary Medical Association (Canadian Veterinary Reserve)**

Appendix 4: National VSOs in EM, Capabilities and Capacity by Province and Territory

Capabilities and Capacity of Voluntary Organizations

Number of Organisations, Employees, Affiliated Volunteers, and Number of Organization Recruiting Spontaneous Volunteers (Surge Capacity)

Data from 16 National Voluntary Organizations (15 with a direct mandate in humanitarian emergencies)

Cap#	CapName	National			
	Capability	Number of Organisations (Out of 16)	Employees	Affiliated Volunteers	Total N Org with Surge Capacity*
Cap01	Risk Assessment	2	60	9,129	1
Cap02	Community Resilience and Preparedness	4	5,588	58,056	3
Cap03	Mitigation (Structural and non-structural)	-	-	-	-
Cap04	Community Emergency Management Planning	5	145	14,294	3
Cap05	Public Information and Warning	4	841	34,738	3
Cap06	Disaster Assessment and Situational Reporting	2	59	4,707	1
Cap07	Operational Coordination in Emergency	5	80	19,412	3
Cap08	Operational Communication in Emergency	6	809	41,341	3
Cap09	Security and Protection	1	-	8,796	-
Cap10	Fire Management and Suppression		-	-	
Cap11	Public Health and Emergency Medical Services	2	114	4,538	-
Cap12	Search and Rescue Operations	4	795	36,196	2
Cap13	Supply Chain management and Logistics	4	5,611	59,146	3
Cap14	Transportation	3	810	24,217	2
Cap15	Emergency Food/Nutrition	4	5,532	58,104	3
Cap16	Emergency Shelter/Lodging	3	150	8,539	2
Cap17	Emergency Clothing & Sundries	4	356	9,029	3
Cap18	Family Services	4	1,079	23,495	4
Cap19	Water, Sanitation, Hygiene	3	5,455	54,770	2
Cap20	Education	1	-	8,796	-
Cap21	Housing Solutions	4	102	5,021	4
Cap22	Emergency Reception Centre	3	184	7,517	1
Cap23	Critical Infrastructure Resilience and Restoration	-	-	-	
Cap24	Economic resiliency and recovery	1	32	1,038	1
Cap25	Animal health and welfare	1	-	474	1

* Number of Voluntary Organizations that have surge capacity in at least one province or territory

British Columbia				Alberta			
Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity	Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity
2	1	2,517	1	2	21	1,394	1
4	337	6,625	2	3	244	5,141	2
-	-	-	-	-	-	-	-
4	27	3,695	1	3	13	1,255	1
4	122	6,857	2	2	167	5,032	1
1	-	757	-	1	-	384	-
5	17	5,457	2	3	1	1,658	1
5	112	8,410	1	4	168	5,924	1
1	-	2,500	-	1	-	1,200	-
-	-	-	-	-	-	-	-
2	27	1,191	-	1	13	50	-
4	111	7,078	1	3	167	5,416	1
2	309	7,403	1	2	223	5,821	1
3	117	4,003	2	2	167	4,216	1
4	330	6,658	3	4	240	5,509	2
3	21	1,755	2	3	32	893	2
3	21	1,755	2	3	34	893	2
3	126	3,253	3	2	183	3,896	2
2	310	6,115	1	2	224	4,995	1
1	-	2,500	-	1	-	1,200	-
4	12	1,138	2	3	23	638	2
3	34	1,828	1	3	32	879	1
-	-	-	-	-	-	-	-
1	11	536	1	-	-	-	-
1	-	68	1	1	-	77	1

Saskatchewan				Manitoba			
Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity	Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity
2	10	341	1	2	2	558	1
3	105	1,576	2	3	89	3,344	2
-	-	-	-	-	-	-	-
3	14	525	-	3	16	861	1
2	34	1,080	1	2	21	1,010	1
2	10	400	1	2	8	462	1
3	11	571	-	3	10	1,003	1
4	35	1,453	1	4	23	1,394	1
1	-	325	-	1	-	550	-
-	-	-	-	-	-	-	-
1	4	15	-	1	8	31	-
3	34	1,295	1	3	21	1,192	1
2	93	1,691	1	3	83	3,864	2
3	44	980	2	3	29	922	2
4	104	1,778	3	4	85	3,488	3
3	11	412	2	3	10	454	2
3	11	412	2	3	10	454	2
2	34	756	2	2	21	461	2
2	94	1,592	1	3	85	3,487	2
1	-	325	-	1	-	550	-
4	20	355	3	4	10	747	3
3	15	426	1	3	18	484	1
-	-	-	-	-	-	-	-
1	10	185	1	1	8	280	1
1	-	32	1	1	-	24	1

Ontario				Quebec			
Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity	Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity
2	11	936	1	2	-	534	1
4	2,494	22,113	2	4	2,077	12,428	1
-	-	-	-	-	-	-	-
4	38	1,933	1	5	9	1,214	1
4	396	13,108	2	3	30	1,505	1
2	38	1,768	-	2	3	362	1
3	6	2,489	-	5	15	2,441	2
5	362	14,482	1	5	34	2,464	1
1	-	856	-	1	-	533	-
-	-	-	-	-	-	-	-
2	34	1,073	-	2	9	679	-
4	358	12,016	1	4	33	2,504	1
3	2,630	20,926	2	3	2,061	12,187	2
3	356	10,342	1	2	30	1,322	1
4	2,473	21,836	3	4	2,072	12,899	3
3	48	2,256	2	3	12	1,255	2
4	253	2,746	3	3	11	1,255	2
4	605	11,445	3	2	30	975	2
3	2,467	21,825	2	2	2,061	11,696	1
1	-	856	-	1	-	533	-
3	11	850	2	3	11	1,201	2
3	36	1,070	1	3	18	1,282	1
-	-	-	-	-	-	-	-
-	-	-	-	1	3	12	1
1	-	114	1	1	-	111	1

New Brunswick				Prince Edward Island			
Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity	Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity
2	13	361	1	2	-	92	1
4	117	1,903	3	3	14	377	2
-	-	-	-	-	-	-	-
4	12	823	2	3	2	262	2
3	18	1,179	1	3	7	375	1
1	-	113	-	1	-	41	-
4	4	863	1	4	2	279	1
5	18	1,350	1	6	9	469	2
1	-	355	-	1	-	92	-
-	-	-	-	-	-	-	-
2	8	293	-	1	-	125	-
4	18	1,292	1	4	7	416	1
2	106	1,774	1	2	12	299	1
2	18	667	1	2	7	199	1
4	110	1,661	3	4	14	270	3
3	4	242	2	3	2	63	2
3	4	242	2	3	2	63	2
3	22	733	3	3	9	204	3
2	106	1,482	1	2	12	224	1
1	-	355	-	1	-	92	-
3	13	30	1	2	-	6	1
3	12	261	1	2	2	62	1
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1	-	15	1	1	-	10	1

Nova Scotia				Newfoundland and Labrador			
Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity	Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity
2	2	1,333	1	2	-	803	1
4	65	2,242	3	4	32	2,028	3
-	-	-	-	-	-	-	-
4	7	1,837	2	3	5	1,542	1
3	36	2,178	1	3	9	1,992	2
1	-	127	-	1	-	74	-
4	5	2,003	2	4	9	2,251	2
5	36	2,522	1	5	11	2,419	2
1	-	1,325	-	1	-	800	-
-	-	-	-	-	-	-	-
2	4	252	-	2	5	742	1
4	36	2,305	1	4	9	2,066	2
2	58	3,050	1	2	23	1,704	1
2	34	733	1	2	7	534	1
4	61	2,158	3	4	30	1,624	3
3	3	433	2	3	7	720	2
3	3	433	2	3	7	720	2
3	37	868	3	3	11	823	3
2	58	1,896	1	2	25	1,261	1
1	-	1,325	-	1	-	800	-
2	2	12	1	3	-	18	1
3	5	436	1	3	10	729	1
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1	-	18	1	1	-	2	1

Yukon				Northwest Territories			
Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity	Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity
2	-	120	1	2	-	140	1
3	5	96	2	3	9	119	2
-	-	-	-	-	-	-	-
1	-	120	-	3	2	197	-
3	1	200	1	2	-	192	-
1	-	42	-	1	-	135	-
3	-	162	1	3	-	205	-
4	1	211	1	4	-	213	-
1	-	120	-	1	-	140	-
-	-	-	-	-	-	-	-
-	-	-	-	2	2	57	-
3	1	217	1	3	-	327	-
2	4	186	1	2	9	207	1
3	1	122	2	1	-	135	-
4	4	108	3	3	9	81	2
3	-	42	2	2	-	14	1
3	-	42	2	2	-	14	1
3	1	80	2	1	-	1	1
2	4	83	1	2	9	80	1
1	-	120	-	1	-	140	-
3	-	26	2	2	-	-	1
2	-	42	-	2	2	18	-
-	-	-	-	-	-	-	-
1	-	25	1	-	-	-	-
1	-	2	1	1	-	1	1

Nunavut			
Organisations	Employees	Affiliated Volunteers	N Org with Surge Capacity
2	-	-	-
2	-	64	1
-	-	-	-
1	-	30	-
2	-	30	-
1	-	42	-
2	-	30	-
3	-	30	-
1	-	-	-
-	-	-	-
1	-	30	-
3	-	72	-
2	-	34	1
1	-	42	-
1	-	34	1
-	-	-	-
-	-	-	-
-	-	-	-
1	-	34	1
1	-	-	-
1	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Appendix 5: Provincial and Local VSOs in EM, Fire Departments

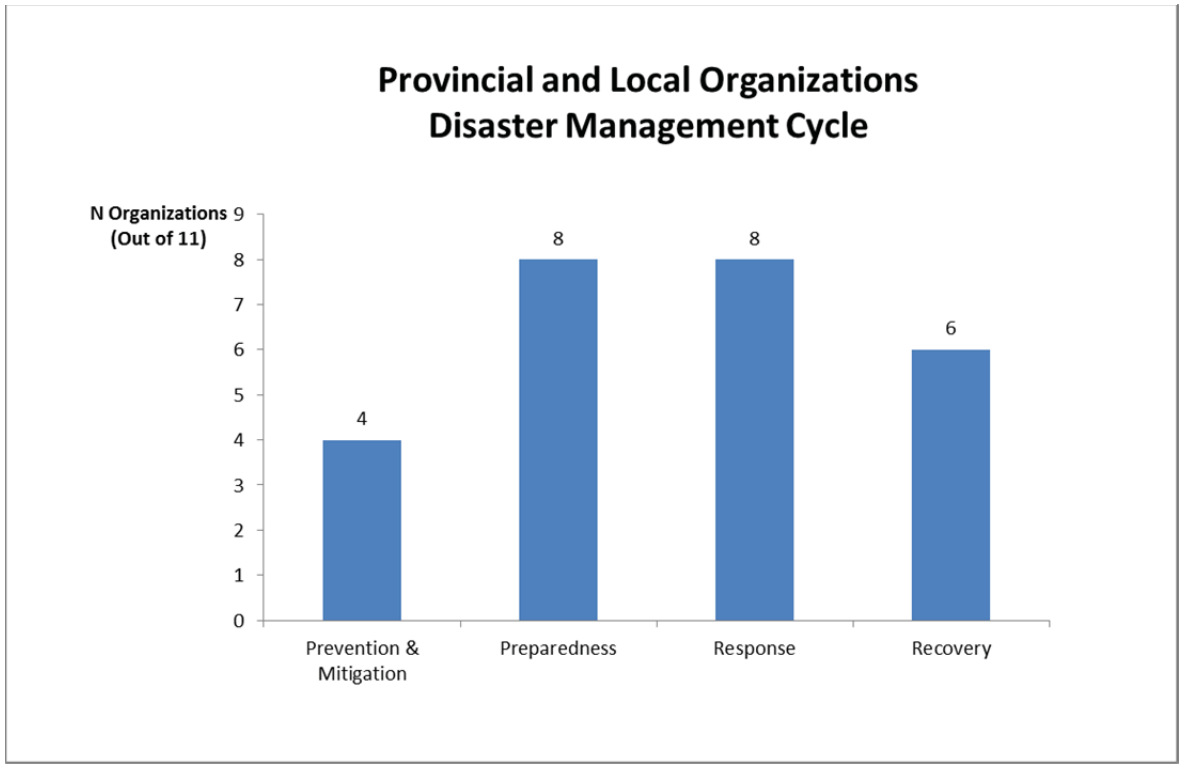
Table 9 – Provincial/Local VSOs in EM by Type, Capability and Volunteer Capacity

	Province		BC	AB	AB	SK	SK	SK	ON	QC	QC	NS	NS
	Organization Type		Local NGO	Local FBO	Local Chapter of a Nat'l NGO-CBO	Prov. Chapter of a Nat'l NGO-CBO	Prov. NGO (Assoc.)	Indigenous Council	Prov. NGO	Metropolitan CBO	Local CBO	Local FBO	Prov. NGO
	Number of Affiliated Volunteers		0	50	2,737	2,000	1,300	2,000	N/A	40	N/A	48	150
	Surge Capacity		YES	YES	YES	YES	NO	YES	NO	YES	NO	YES	YES
Cap#	Capability	N Org | N Cap	2	2	2	9	1	14	4	8	3	1	1
Cap01	Risk Assessment	2				x		x					
Cap02	Community Resilience and Preparedness	5		x		x		x		x			x
Cap03	Mitigation (Structural and non-structural)												
Cap04	Community Emergency Management Planning	2				x		x					
Cap05	Public Information and Warning	4	x			x		x		x			
Cap06	Disaster Assessment and Situational Reporting	1								x			
Cap07	Operational Coordination in Emergency	2		x				x					
Cap08	Operational Communication in Emergency	1						x					
Cap09	Security and Protection												
Cap10	Fire Management and Suppression	2					x	x					
Cap11	Public Health and Emergency Medical Services												
Cap12	Search and Rescue Operations	1						x					
Cap13	Supply Chain management and Logistics												
Cap14	Transportation	3						x	x	x			
Cap15	Emergency Food/Nutrition	4				x			x	x	x		
Cap16	Emergency Shelter/Lodging	3	x			x			x				
Cap17	Emergency Clothing & Sundries	3				x				x	x		
Cap18	Family Services	3			x					x		x	
Cap19	Water, Sanitation, Hygiene	3				x		x		x			
Cap20	Education	3			x	x		x					
Cap21	Housing Solutions												
Cap22	Emergency Reception Centre	2						x			x		
Cap23	Critical Infrastructure resilience and restoration	1						x					
Cap24	Economic resiliency and recovery												
Cap25	Animal health and welfare	2						x	x				

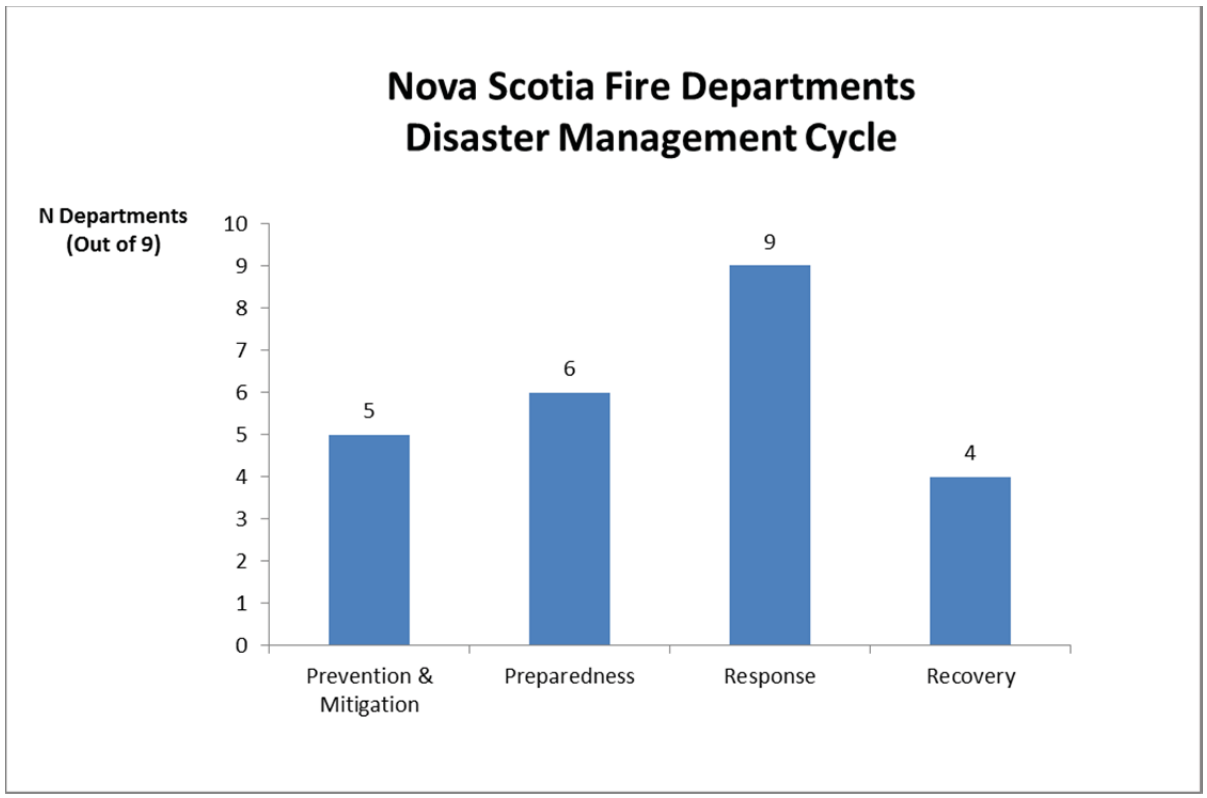
Table 10 – NS Fire Departments by Type, Capability and Volunteer Capacity

			Fire Dpt 1	Fire Dpt 2	Fire Dpt 3	Fire Dpt 4	Fire Dpt 5	Fire Dpt 6	Fire Dpt 7	Fire Dpt 8	Fire Dpt 9
	Number of Affiliated Volunteers		**30**	**40**	**16**	**15**	**22**	**20**	**39**	**40**	**19**
	Surge Capacity		**NO**	**YES**	**NO**	**YES**	**NO**	**NO**	**YES**	**YES**	**NO**
Cap#	**Capability**	**N Fire Dpt | N Cap**	**9**	**2**	**1**	**6**	**1**	**1**	**5**	**1**	**6**
Cap01	Risk Assessment	**1**	x								
Cap02	Community Resilience and Preparedness	**1**	x								
Cap03	Mitigation (Structural and non-structural)	**3**	x	x							x
Cap04	Community Emergency Management Planning										
Cap05	Public Information and Warning	**1**				x					
Cap06	Disaster Assessment and Situational Reporting										
Cap07	Operational Coordination in Emergency	**1**	x								
Cap08	Operational Communication in Emergency	**1**	x								
Cap09	Security and Protection										
Cap10	Fire Management and Suppression	**9**	x	x	x	x	x	x	x	x	x
Cap11	Public Health and Emergency Medical Services	**2**				x			x		
Cap12	Search and Rescue Operations	**1**				x					
Cap13	Supply Chain management and Logistics										
Cap14	Transportation	**1**									x
Cap15	Emergency Food/Nutrition	**3**				x			x		x
Cap16	Emergency Shelter/Lodging	**4**	x			x			x		x
Cap17	Emergency Clothing & Sundries										
Cap18	Family Services										
Cap19	Water, Sanitation, Hygiene	**2**	x						x		
Cap20	Education										
Cap21	Housing Solutions										
Cap22	Emergency Reception Centre	**2**	x								x
Cap23	Critical Infrastructure resilience and restoration										
Cap24	Economic resiliency and recovery										
Cap25	Animal health and welfare										

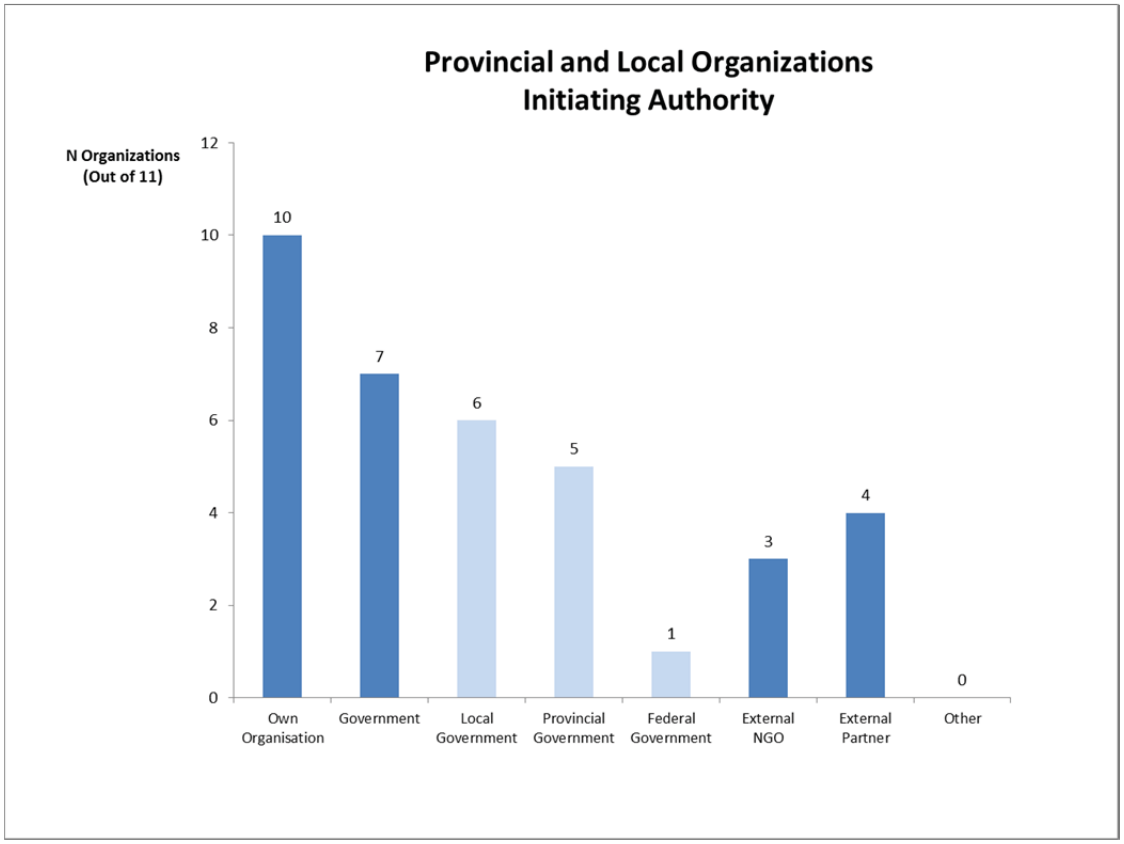
Graph 8 – Provincial and Local VSOs and the DM Cycle



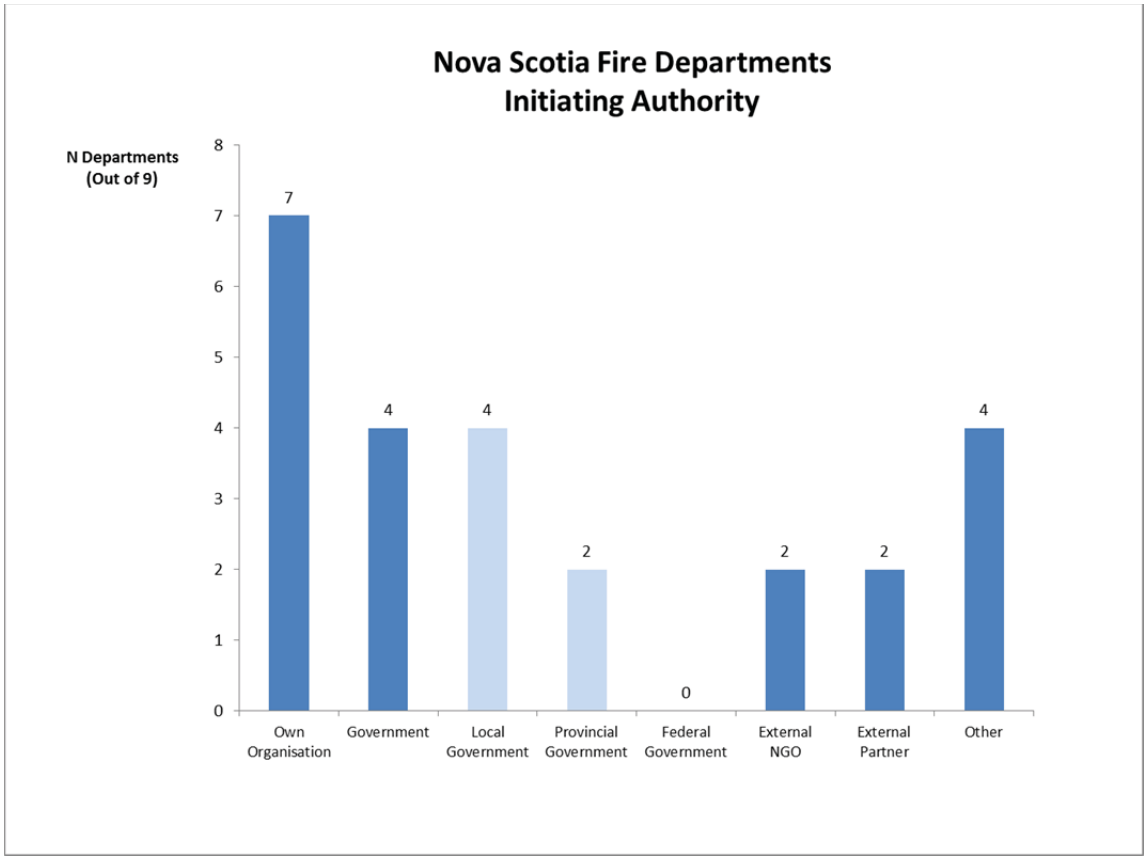
Graph 9 – NS Fire Departments and the DM Cycle



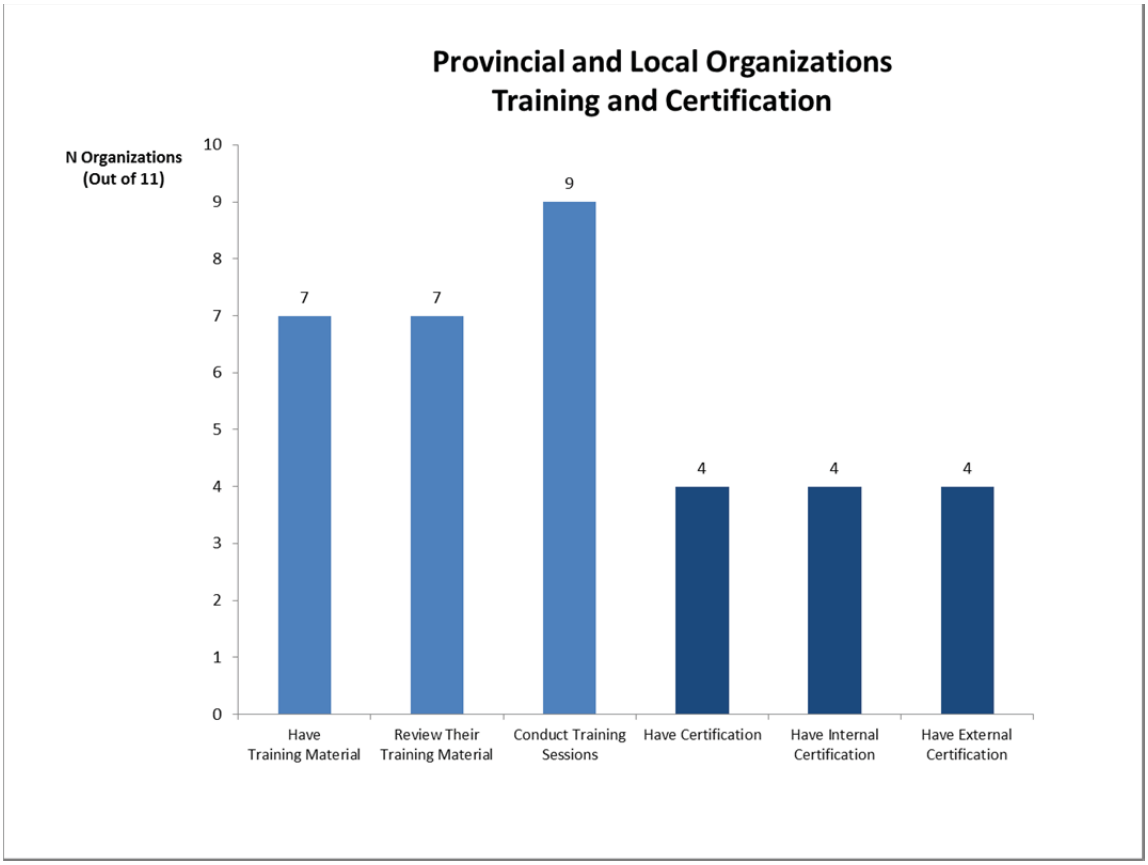
Graph 10 – Provincial and Local VSOs and Initiating Authority



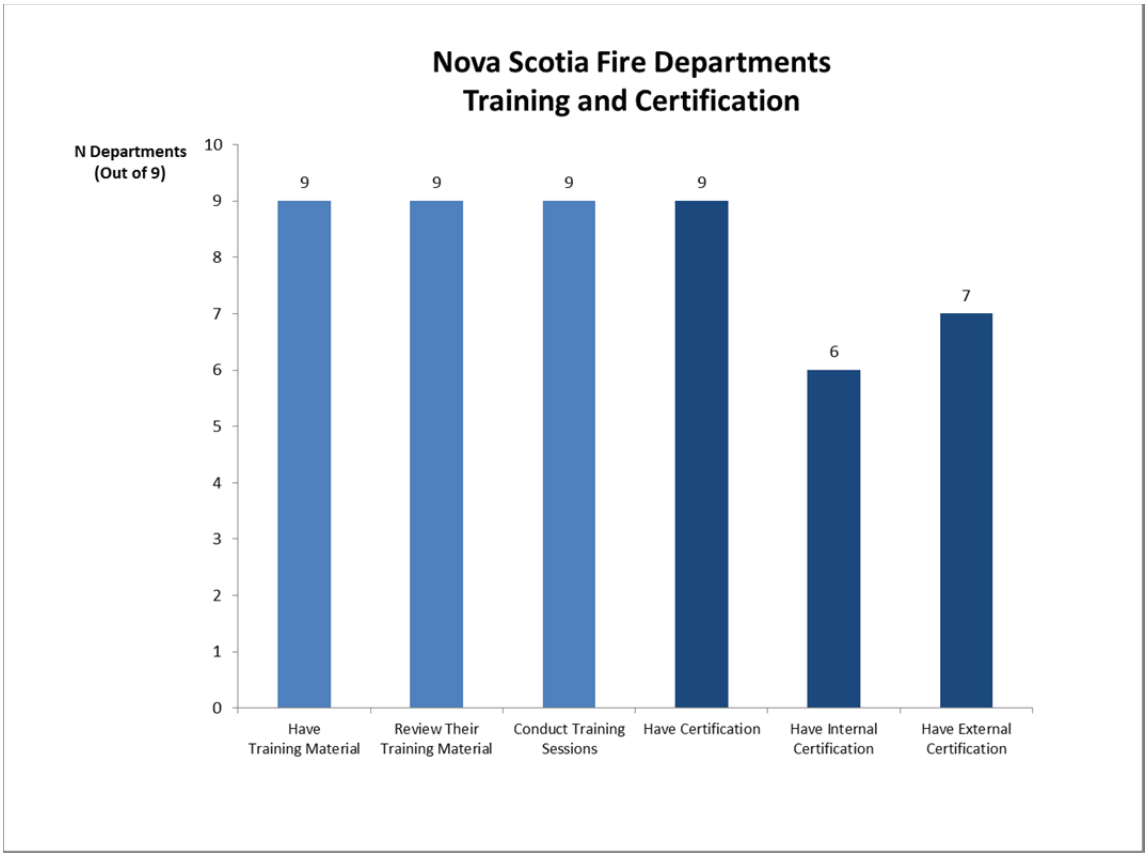
Graph 11 – NS Fire Departments and Initiating Authority



Graph 12 – Provincial and Local VSOs: Training and Certification



Graph 13 – NS Fire Departments and Training and Certification



Appendix 6: Case Studies

Case Study 1: Arrival and Welcoming of Syrian Refugees in Halifax: The Role of Volunteers

Best Practices

- ✓ From lessons learned (Operation Parasol) to lessons applied
- ✓ A pre-existing framework for coordination at the provincial level
- ✓ Pre-existing arrangements with government for the provision of critical services by voluntary organizations
- ✓ A collaborative and complementary approach combining the expertise of multiple organizations and agencies
- ✓ Spontaneous volunteer surge managed early on with the knowledge and tools developed by voluntary organizations
- ✓ Preparedness and response exercises involving the voluntary sector and government
- ✓ Response-specific task force and working groups

Context

Since the outbreak of the civil war in 2011, nearly 4 million Syrians have fled from Syria[11]. In November 2015 the Government of Canada presented a five-phase national plan for welcoming 25,000 Syrian refugees by the end of February 2016, including privately sponsored refugees (PSRs) and government-assisted refugees (GARs). The five phases consisted of: 1) identifying Syrian refugees to come to Canada; 2) selecting and processing Syrian refugees overseas; 3) transportation to Canada; 4) arrival and welcoming in Canada; and, 5) settlement and community integration. The Government of Canada committed to *"working with other orders of government, non-governmental organizations, partners and Canadians across the country to help ensure successful integration of Syrian refugees into their new host communities"*[12].

This case study presents the role of the primary Voluntary Sector Organizations (VSOs) and community-based organizations (CBOs) in Halifax that supported governmental agencies for the arrival and welcoming of government assisted refugees in Nova Scotia (phase 4). The case study focuses in particular on the engagement and participation of volunteers.

[11] United Nations High Commissioner for Refugees, http://data.unhcr.org/syrianrefugees/regional.php (last accessed: 2016-07-08)

[12] Government of Canada, News Release, Canada Offers Leadership on the Syrian Refugee Crisis, http://news.gc.ca/web/article-en.do?nid=1021919 (last accessed: 2016-07-08)

Operation Syrian Refugee - Nova Scotia
Primary agencies and organizations

Government of Canada

IRCC: Immigration, Refugees and Citizenship Canada

Provincial government of Nova Scotia

EMO: Emergency Management Office
NSOI: Nova Scotia Office of Immigration
DCS: Department of Community Services
NS Education: Nova Scotia Education
Transport NS: Transport Nova Scotia

Municipal government

HRM: Halifax Regional Municipality

Voluntary/community/non-government organizations

ISANS: Immigration Services Association of Nova Scotia
YMCA
CRC: Canadian Red Cross
211 Nova Scotia

Supporting and Coordinating with Government

From early on, the provincial government of Nova Scotia had indicated to the federal government its willingness to support the resettlement of up to 1,500 Syrian refugees[13]. According to Immigration, Refugees and Citizenship Canada (IRCC) regarding the refugee arrivals, the initial discussions and planning for resettlement were with the Nova Scotia Emergency Management Office (EMO) and the Nova Scotia Office of Immigration (NSOI). Based on early communications, the province was anticipating a possible mass arrival of refugees similar to the 1999 Kosovar air lift (Operation Parasol), where military planes and bases in Nova Scotia were used to transport and house 5,000 Kosovars[14].

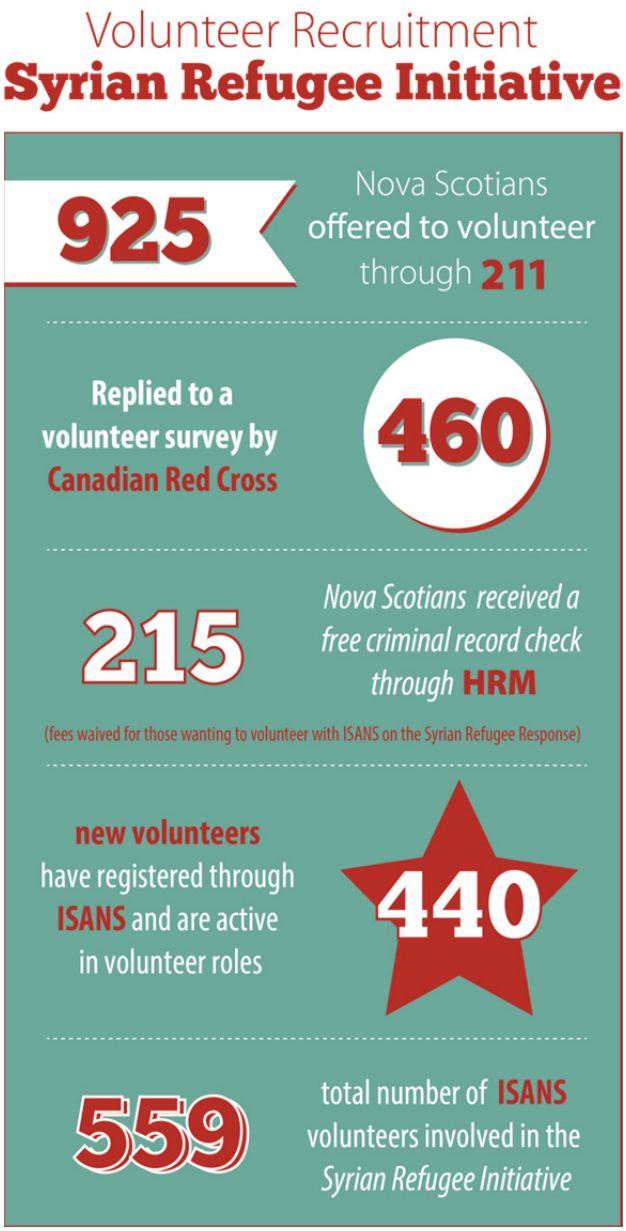
The provincial government tasked EMO Nova Scotia to take the lead in coordinating the response to this humanitarian emergency, including the anticipated large-scale population movement. EMO would direct the coordination of the various actors using its Incident Command System (ICS) so as to respond to the needs of a population in transition.

EMO, in concert with the Department of Community Services (DCS), NSOI, Nova Scotia (NS) Education, and Transport Nova Scotia (NS) started preparing for the arrival of the refugees on a mass scale. Provincial government departments and major VSOs were asked what they could offer to the response. The task force, chaired by EMO, and working groups made up of representatives of municipal and provincial government bodies, voluntary and other non-governmental organizations was formed to plan for the Syrian refugees' arrival and to organize and coordinate the offers of assistance.

[13] http://novascotia.ca/refugeeresponse/documents/dec-14-2015-technical-briefing.pdf (last accessed: 2016-09-07)
[14] https://www.opencanada.org/features/when-the-refugees-came-snapshots-from-five-compassionate-moments-in-canadas-history (last accessed: 2016-09-06)

It is important to note here that a framework for coordination already exists in the province and a number of primarily bi-lateral agreements with voluntary and community-based organizations are also in place. Those included, for instance, agreements between IRCC and the YMCA and Immigration Services Association of Nova Scotia (ISANS) to provide settlement assistance to refugees for their first year in Canada, and a pre-existing Memorandum of Understanding between NSOI and ISANS, and also between DCS and the Canadian Red Cross NS for the provision of expertise and workforce in all six of Emergency Social Services (ESS) (emergency food, emergency lodging, emergency clothing, registration of evacuees, personal services, reception centre/shelter management.)

In particular, the NSOI collaborated closely with ISANS who was responsible for coordinating and managing the arrival and settlement of refugees in Nova Scotia including: airport pick-ups, stays at interim housing sites, orientation to Canada sessions, supporting registration for social services (health, Social Insurance Number, registering children in school) and settling families in apartments. The arrival schedule to Nova Scotia was eventually paced at a slower rate than anticipated with a maximum of 100 people per week arriving at the Halifax International Airport. ISANS had clearly stated to their working group that they could absorb this number with the support of other provincial, municipal and voluntary organizations and their bolstered volunteer force.



Source: ISANS

Managing Volunteer Surge – Together

As the announcement by the federal government of the imminent mass arrival of refugees created a media frenzy, Nova Scotians immediately offered their help. The task force took upon communicating needs to the public and responding to the offers of in-kind goods, monies and volunteer time. ISANS's already well-developed online volunteer registration process meant that volunteers were able to sign up for shifts that suited them online. This same process allowed volunteers to be affiliated with a given program or department and subsequently receive email alerts regarding the needs of those programs

However, as the volume of calls overtaxed ISANS' capacity, 211 Nova Scotia, a free, confidential

information and referral service to more than 3,000 community and social services across Nova Scotia, stepped up to answer calls and patiently responded to the incredible range of offers that came in. Over the course of seven weeks, 211 logged 2,819 calls with 925 Nova Scotians offering to volunteer[15]. CRC, with its experience in volunteer resource management, took on the role of directing all 925 individuals who offered to volunteer their time to support the arrival and settlement of the Syrian refugees. Through close collaboration with 211 and ISANS, CRC eventually supported the intake, screening and onboarding of 440 new volunteers to ISANS.

With the arrival of 977 Syrian refugees in Nova Scotia, most coming through Halifax, this meant that there was one new volunteer for every two Syrians that arrived in Nova Scotia. And a total of 559 volunteers ended up being involved in the Syrian Refugee Initiative through ISANS.

A Range of Voluntary Services

While collaboration may have seemed largely spontaneous, coordination and communication were facilitated by the task force and working groups that held weekly meetings to share information and workload. These collaborations also benefitted from prior planning exercises such as the disaster/emergency exercises involving CRC, EMO and DCS, thus enabling stakeholders to streamline their actions and be responsive while minimizing challenges.

Most of the response was centered in the Halifax Regional Municipality (HRM) where the majority of refugees settled. HRM partnered with ISANS to distribute and keep track of a municipal card granting refugees free use of public transportation as well as of municipally owned recreational facilities and programs for one year. Outside of HRM the YMCA's YREACH program supported newcomers settling in rural communities.

Both spontaneous and affiliated ISANS volunteers provided a wide variety of services including: translation, airport reception, transportation to interim lodging site (hotel), orientation to Canada sessions, providing medical care (with the support of the Transitional Health Clinic for Refugees), childcare, organizing and leading recreation activities for children, youth and adults, accompanying people on field trips, logistics around the hotel, sorting in-kind donations at the central depot, familiarizing refugees with the transportation system, and facilitating the

Photo Credit: ISANS

[15] http://www.isans.ca/national-volunteer-week/ (last accessed 2016-09-07)

eventual transition and settlement in permanent housing.

Nova Scotia welcomes an average of 218 refugees a year. However, the concerted efforts of voluntary organizations and governmental agencies enabled the arrival and welcoming of 700 Syrian refugees within four months.

As reported on ISANS's website: "Volunteers sorted clothes and mugs, bicycles and blankets, toys and toothpaste. They served food, interpreted, rocked the babies, played with the children, went shopping, accompanied people on the bus, played soccer and chatted with people. Welcoming 700 new Nova Scotians would have been impossible without the volunteers, and we want to thank each and every person for their compassion, commitment and kindness." [16]

Summary of Volunteer Capabilities

CRC in Nova Scotia was asked to identify all the capabilities deployed by volunteers and voluntary organizations from the master list of capabilities developed for this assessment report[17]. The following eleven capabilities were selected:

- ✓ Risk Assessment (related to refugees wellness and psycho-social needs)
- ✓ Community Resilience and Preparedness
- ✓ Public Information and Warning
- ✓ Disaster Assessment and Situational Reporting
- ✓ Operational Coordination in Emergency
- ✓ Operational Communication in Emergency
- ✓ Public Health and Emergency Medical Services
- ✓ Supply Chain management and Logistics
- ✓ Transportation
- ✓ Family Services
- ✓ Housing Solutions

Photo Credit: ISANS

[16] Ibid
[17] Appendix 3

Case Study 2: Alberta Wildfires: Edmonton and the 50,000 Evacuees

Best Practices

This case-study highlights how principles of "resilience" [42] were at work, overlapped, and made it possible to address the unexpected consequence of a dramatic wildfire:

- ✓ Broad Participation, diversity, redundancy
  - Involvement of many organizations, including local community-based organizations rooted in Edmonton, to address a multitude of needs
  - Aggregation of expertise and resources from closely related/similar organizations enabling to meet the large demand while also minimizing "burn-out" effects
- ✓ Connectivity
  - Strong pre-existing relationships between local organizations
  - Experienced use of social media to reach-out to volunteers and inform the public
- ✓ Feedback and adaptation:
  - Scaling-up from "daily" crisis to an emergency mode made possible through strong expertise, partnerships, "loose" networks, and brand recognition
  - Adapting services to evacuees' specific needs (e.g. cultural and linguistic) to prevent social isolation and marginalization
- ✓ Polycentric governance systems and learning: "top-down", "bottom-up" and "transversal" responses initiatives complemented each other. While they did not collide, they are being streamlined in preparation to future responses.

Context

An urban-interface wildfire discovered on May 1, 2016 triggered a mandatory evacuation of over 80,000 individuals within the Regional Municipality of Wood Buffalo (RMWB) on May 3, 2016. An estimated 50,000 evacuees temporarily relocated to Edmonton – the equivalent of one evacuee for every sixteen Edmontonians. Furthermore, the majority of evacuees who needed shelter in evacuation centres were immigrants, temporary foreign workers and refugees. Also, because of the

Photo Credit: DarrenRD [CC BY-SA 4.0]

sudden, highly perilous, and sustained circumstances of the evacuation (fire erupted along Highway 63, the only route to exit Fort McMurray), many evacuees suffered from emotional shock and stress. Governmental agencies and national, provincial and local voluntary and non-profit organizations quickly responded to support the evacuees. While some of these organizations received a formal request from authorities, a number of non-profits organizations spontaneously committed their expertise and resources to offer help.

This case study provides a non-exhaustive illustration of the diversity of organizations that responded to an evacuation of the magnitude generated by the Alberta wildfires. It highlights the dedication, readiness and social capital of the Canadian non-profit and voluntary organizations, and their ability to take and lead initiatives. These collaborations enabled the mobilization of expertise and resources that were indispensable to assist such a large and very diverse population of evacuees. This case study underscores how inclusive, if not quasi eco-systemic, response systems that capitalize on voluntary action and diversity give meaning to "whole-of-society" resilience.

Unless specified otherwise, the information presented here comes directly from field notes gathered for the purpose of this case study at the end of July 2016. Pictures have been collected from organizations or internet sources.

Edmonton Responding

City of Edmonton

Northlands, a mandated evacuation centre: As the evacuation from RMWB became compulsory and many evacuees were heading south, the City of Edmonton was mandated by the Province of Alberta to offer assistance and establish a temporary evacuation centre at Northlands Exhibition Centre (Northlands). Northlands was staffed primarily by municipal employees who instead of, or in addition, to their regular job, offered critical services to evacuees. Northlands saw up to 2,000 people stay overnight and a total of 25,000 evacuees until it closed its door on May 27[18].

Photo Credit: Edmonton Journal

Northlands had representatives of provincial and federal agencies on site for the provision of their services, including Employment Insurance. The City also worked closely with voluntary organizations including Edmonton's Food Bank, the Canadian Red Cross (CRC) (for the setup of the evacuation centre,

[18] CBC News, May 27, 2016

the registration of evacuees, and the provision of emergency supplies), the YMCA and Save the Children (for events/activities, transportation, childcare).

Edmonton Emergency Relief Services Society (EERSS), a voluntary organization which has an established agreement with the City of Edmonton and works in collaboration with the Edmonton Office of Emergency Management, provided material relief to evacuees. The City supported EERSS by locating a large warehouse and securing a distribution centre at Kingsway Garden Mall that was staffed by EERSS volunteers who worked there seven days a week from 9:00 am to 8:00 pm.

Edmonton Food Bank

From food insecurity to food emergencies: The Edmonton Food Bank is a large organization with 40 locations, including in churches and Community-Based Organizations (CBOs) that are hosting depots for the Edmonton Food Bank. A total of 210 local organizations currently collaborate with the Edmonton Food Bank. The Edmonton Food Bank has seen its number of beneficiaries recently rise from a steady 13,000 people to 20,000 in May 2016 due to the economic slump in the oil-sands industry. The Edmonton Food Bank receives donations from individuals and corporations, including supermarket chains. Beyond tackling food insecurity, the Edmonton Food Bank also provides assistance during emergencies.

Photo Credit: Edmonton Food Bank

A strong pool of volunteers: Shortly after the evacuation, the Edmonton Food Bank started to see people coming directly to their locations with just “the clothes on their back”. In order to respond to this crisis, the Food Bank extended its hours. Its volunteer force consists of 2,000 people that normally give 40-60 hours a year, but they stepped up to provide more hours. Volunteer management process at the Edmonton Food Bank consists of an application and training that includes a handbook, a formal session and hands-on-training. Volunteers are individuals from the general public, including many youth, community groups, Churches, and businesses.

During the emergency, the Edmonton Food Bank received additional volunteer help from a number of sources. Private sector companies such as SUNCOR and Syncrud sent about 200 employees to help the Food Bank, and also kept their employees involved and at-the-ready until the situation would normalize. Other companies, such as EPCOR, Telus and General Electric (whose employees regularly support the Edmonton Food Banks), YYC Helps (a volunteer movement that emerged during the Calgary flood), and the City of Edmonton all sent volunteer forces.

A recognized destination for in-kind donations: The Edmonton Food Banks attributes the in-kind help to the generosity of donors beyond the presence and “brand recognition” that the Food Bank has established over the decades. Indeed, food donors came “fast and furious”, including companies such as

Kellogg's, General Mills, Kraft, and others. Large trucks would just show up to the main depot to drop large quantities of food and water bottles. The international company Manitou offered transportation to distribute food to agencies and other organizations served by the Food Bank. Remarkably, all these organizations provided these goods and/or services as spontaneous reactions to an urgent need, foregoing the typical requirements of written agreements and paperwork.

Established and new collaborations: The Edmonton Food Bank has an established agreement with the Salvation Army to provide the ingredients for their kitchen. During the emergency, the Food Bank delivered an additional 50% of food to meet the demand of first responders and evacuees who came under the care of the Salvation Army. It also increased by 30% its delivery to partner churches and CBOs.

After operating the Northlands evacuation centre the first few days, the City of Edmonton became award that it could access the Edmonton Food Bank, and in so doing, would lessen the logistical and financial burden on the City's resources. The Edmonton Food Bank was called at 10 am and the first shipment was delivered by 2 pm. This collaboration lasted for about 3 weeks, with one delivery a day for about 2,000 people. The Food Bank also provided a steady supply of baby formula that Alberta Health Services needed. In addition, the Edmonton Food Bank delivered food to hotels that hosted large groups of evacuees.

United Way and 211

United Way of the Alberta Capital Region and 211 Edmonton and Area worked hand-in-hand and were very active in bringing agencies and organizations together and in making sure available resources were known to all. United Way organized coordination and planning meetings and chaired weekly conference calls with the City of Edmonton, Alberta Health, Alberta Health Services, local and national organizations and 211 which, in Edmonton, is "housed" by the local chapter of the Canadian Mental Health Association (CMHA).

As the 211 Fort MacMurray calls were re-directed to 211 Edmonton, the average call increased from 3 minutes to 10 minutes with people calling to get help related to basic needs such as housing, food, clothing, as well as mental health. Although 211 Edmonton is not formally in the City's Emergency Plan, 211 worked closely with the City to direct evacuees towards the right resources. Over 3,000 211 handbooks and resources sheets specifically adapted to the crisis were distributed to the Northlands and other evacuation centres set up by the local institutions and organizations. 211 also directed people in need to CMHA's mobile application, LinkYEG, which provides real time information for emergency support services including those related to food, shelter, health and medical needs, clothing and essentials, etc. 211 provided daily statistics to the City of Edmonton and other agencies on the number and nature of calls.

Universities and the Collaborative 5

Given the very high number of evacuees, the University of Alberta and MacEwan University made their student residences available to shelter up to 1,500 evacuees. More than half of the evacuees arriving at Northlands were immigrants, temporary workers or refugees, who accounted for about 95% of the evacuees that came to the student residences. Recognizing the need for specialized support services, the Universities tapped into their local network through the Collaborative 5 (C5), while also having Alberta Health Services, the Canadian Red Cross and Save the Children on site.

The C5 is a coalition of five organizations in Edmonton that have established strong working relations between complementary and like-minded organizations in order to streamline the delivery of community, family and mental health services to their clients. The collaborative has been in existence for five years and includes the following organizations:

- Norwood Child and Family Resource Centre (children and families)
- Bent Arrow Traditional Healing Society (indigenous people)
- Boyle Street Community Services (homelessness and poverty)
- Edmonton Mennonite Centres for Newcomers (immigrants/refugees)
- Terra Centre (teen parents)

C5 has strong connections within the Edmonton community and is able to mobilize a range of local organizations such as the Family Centre to provide trauma-related services and the Islamic Family and Social Services Association (IFSSA) to respond to specific cultural needs. It also has access to individual volunteers who could provide culturally sensitive services, as well as interpretation and translation support, to match the profile and needs of the population evacuated.

The Mennonite Centre for Newcomers (MCN): As soon as MCN was called by the University of Alberta on May 9, the organization reached out to its partners from the C5 group and from the community. MCN's own staff included therapists and social workers that were able to provide psycho-social support related to trauma, and the provision of housing, schools, and immigration-related services. MCN was helped by the Family Centre whose staff members spent two days a week at each site to bring parents together and offer one-on-one counselling. MCN was able to use a package it had recently prepared for the arrival of Syrian refugees. The organization also absorbed a total of eight staff from the Fort McMurray YMCA and Keyano College. And the organization activated its internal network to provide 75-100 volunteers (from a pool of 400 standing volunteers) to help at the Kingsway distribution centre, for translation purposes and to support people waiting in line at the evacuation centres.

Norwood Family Centre put together a team of staff that mirrored the population of evacuees at the universities and took care of child minding, youth programming and

addressing special needs. About 100 volunteers were recruited through social media for tasks requiring very specific skills but not advanced expertise. Save the Children ensured that screening was done for child minders which consisted of an appropriate but expedited police check.

Boys & Girls Club of Canada and Big Brothers Big Sisters

A widespread network: Boys & Girls of Canada and Big Brothers Big Sisters (BIGS), which is one organization in Edmonton, collaborated with the other organizations (Save the Children, C5) to help put together, via its very extensive network within the Edmonton population, a team of volunteers that was culturally representative of the population of evacuees. Indeed, BIGS in Edmonton has 65,000 people in its relationship network including teachers, parents and volunteers and manages 1,000 volunteers on a daily basis. The organization arranged for five hours of programming for children for five weeks of services in addition to raising funds to support the emergency.

The Adventist Development and Relief Agency

Photo Credit: ADRA warehouse, CBC News

A provincial mandate: The Adventist Development and Relief Agency (ADRA) is part of the NGO Council and was asked by the Government of Alberta Provincial Emergency Social Services (PESS) agency to manage in-kind donations after the initial response efforts into recovery. ADRA entered a contract with the province of Alberta to collect, manage and transport donations from Edmonton to Fort Mac Murray for the period from June 1 to November 30. This contract was a first for ADRA in Alberta. The EERSS had accumulated a lot of donations that were thus transferred to ADRA. Donations had come from private companies (e.g. Under Armour, Adidas) and from citizens. By end of July, these donations amounted to about 2,000 pallets.

Recruiting through congregations and online: From June 1 and over the seven weeks following, ADRA had mobilized 317 volunteers, an average of 10 volunteers/day for more than 2 hours/day. To recruit them, ADRA initially reached out primarily to Churches and EERSS volunteers, however very quickly moved to Social media and online Volunteer boards. The organization estimates that 25% of volunteers returned more than once. As much of the work did not require specialized skills and was considered to be low-risk, volunteers were asked to sign-up online and no background check was required, although volunteers were encouraged to voluntarily disclose any criminal record they may hold. Selected

volunteers did receive a fifteen-minute orientation on site and were required to watch a ten-minute safety video. Volunteers were given a safety vest, offered hot lunches, and had drinks and snacks available to them all day. ADRA's staff directly supported volunteers on site and the organization did not report any issues about volunteer management.

Managing donations just-in-time: ADRA's system is one based on thorough sorting of inventory and specific, just-in-time shipment of donations. Indeed, the organization kept up-to-date a daily inventory of what was sorted and ready to be shipped. Items included personal hygiene, clothing, baby products, and canned products. A specific request form had to be completed by one of the ten partner distribution centres in Fort McMurray so as to minimize waste and meet existing needs. The ten distribution centres included RMWB Food Bank, the Salvation Army, Waypoints, The Canadian True Power, Willow Lake County Association, and a number of churches and faith-based groups. ADRA's own staff loaded the trailers of Rosenau transportation, a paid service, to ship donations twice a week from Edmonton to Fort McMurray.

The Salvation Army

The Salvation Army uses only affiliated volunteers trained to their international standards. Sometimes the Salvation Army deploys volunteers in partnership with other organizations that have also screened and trained their volunteers, such as the Lions Club.

The Salvation Army was involved in the Alberta Wildfire response by providing meals to first responders in the RMWB using their mobile kitchens to prepare food provided through its agreement with Edmonton Food Bank and from other corporate partners. In Edmonton the organization provided $200,000 worth of immediate assistance covered by public donations. The Salvation Army was able to help 12,000 families by distributing food hampers, gift cards, clothing, mattresses/bedding, household items and vouchers to thrift stores.

The Canadian Red Cross

Anticipating deployment: The Canadian Red Cross (CRC) received a formal request from the Government of Alberta on May 3 to support response efforts and started to activate its Human Resources/Volunteer Resources and set up logistics in anticipation of deployment.

CRC volunteers are classified by response type (level 3 in this instance), training, and experience. The Field Operation Team (FOT) prepared all the deployment paperwork to keep track of hours of work and expenses. Although affiliated volunteers are trained, each one of them goes through an in-depth four-hour long orientation. Volunteers were recruited for two categories of work: 1) Client-facing volunteers who would work front line with the public; and, 2) Support service volunteers who would work in the "back office" (or field).

Volunteers at work: CRC Volunteers accomplished a wide variety of tasks ranging from providing logistic and IT support to receiving evacuees at Edmonton's airport, to handing out hygiene kits and gas cards at evacuation centres. As CRC was designated as the organization that would collect funds and manage financial assistance, CRC volunteers collected monetary donations and referred donors to other organizations for all in-kind donations. Volunteers were instrumental in registering evacuees, validating their identity, assessing their needs and establishing short-term and long-term assistance. These volunteers were supported by two call centres, one in British Columbia and one in the Atlantic, also staffed by volunteers.

Recruiting spontaneous volunteers: As demand, in particular to register and provide financial assistance, rose dramatically, CRC started to recruit spontaneous volunteers. Potential volunteers had to register online through a portal which was itself managed by a team of affiliated volunteers in Ontario. Spontaneous volunteers were recruited based on specific locations to avoid traveling. They were assessed for their skills against needs and if selected, screened through an enhanced police check, including criminal record, which would typically take 24 hours to complete. If selected, they would

receive a 40 minute orientation in Edmonton's Red Cross office. The need for volunteers was evaluated everyday and while the roles of affiliated volunteers were more formalized, the roles of spontaneous volunteers stayed fluid. It is estimated that, at any time, there were 100 volunteers helping directly at shelters sites, 30 to 40 volunteers in Edmonton office alone, and volunteer case workers could meet up to 40 clients a day.

Volunteers, above and beyond: CRC indigenous outreach team was also staffed by volunteers specifically selected and trained to work in different cultural contexts. The team would go to locations where indigenous people had gone. The safety and well-being team was comprised of volunteers with a background in social work, nursing, and psycho-social counselling. They served both immigrant and indigenous evacuees and would provide to these groups additional referrals. As there was not a ready to deploy volunteer roster for children, CRC worked with Save the Children. Strong of learnings from Slave Lake fire and the Alberta flood, the CRC was also very proactive in leveraging volunteer resources to get information on Social Media and provide consistent messaging with the emphasis being put on "dos" rather than "don'ts", articulating needs more clearly, and recognizing everyone's contribution.

From Spontaneous Resilience to Integrated Networks

This case study shows that inclusion of civil society organizations is becoming not an optional, but rather an indispensable, feature of emergency response. The Fort McMurray incident, in particular, exemplified how there are needs resulting from emergencies that cannot be fully foreseen in advance. While most of the agencies engaged in Edmonton were already networked with each other to provide crisis responses, the response called out by the Fort McMurray evacuation vastly exceeded the scale of any planning that had been done in advance. Only by tapping into the extent and diversity of volunteer resources available within the Edmonton community and beyond could they have met the magnitude and the variety of needs of over 80,000 people evacuated within a few hours[19].

Despite the wide participation and the strong synergies, most organizations and agencies underscored the need for Edmonton to adopt a more predictable approach to access the variety of resources available locally. While non-profit and voluntary organizations demonstrated their ability to scale-up, be responsive and flexible, the need for processes that ensure accountability still persisted. In recognition to these community assets, the Edmonton Chamber of Voluntary Organizations is currently working in partnership with the Calgary Chamber of Voluntary Organizations to replicate and adapt local models that support a coordinated response from the non-profit and public sectors during an emergency.

Summary of Volunteer Capabilities

- ✓ Community Emergency Management Planning
- ✓ Public Information and Warning
- ✓ Disaster Assessment and Situational Reporting
- ✓ Operational Coordination in Emergency

[19] Waldmann et al., 2016

- ✓ Operational Communication in Emergency
- ✓ Transportation
- ✓ Emergency Food/Nutrition
- ✓ Emergency Shelter/Lodging
- ✓ Emergency Clothing & Sundries
- ✓ Family Services
- ✓ Water, Sanitation, Hygiene
- ✓ Emergency Reception Centre

Case Study 3: Lac-Mégantic Rail Disaster: Mobilizing Volunteers from Response to Recovery

Best Practices

- ✓ Pre-existing agreements with provincial government and regional county municipalities
- ✓ Close collaboration with provincial and local authorities and agencies
- ✓ Emergency Response Plan in place and activated
- ✓ Pre-positioned Emergency Preparedness supplies
- ✓ Rapid recruitment and training of primarily local, spontaneous volunteers
- ✓ Pro-active and transparent funds development strategy
- ✓ Inclusive and participatory recovery process built with and for the community

Context

On July 6 2013, a 72-car freight train carrying some six million litres crude oil derailed in Lac-Mégantic, Quebec, causing a series of major explosions and fires to break out in the community. Forty-seven people were killed and nearly half of the downtown core was destroyed, including the town's library and landmark businesses, while many more buildings were affected by smoke damage. Over 150 firefighters from Lac-Mégantic, neighbouring towns, the city of Sherbrooke, and the United States rushed to the site to battle the blaze which took two days to contain. Out of the 6,000 residents of Lac-Mégantic, an estimated 2,000 people were evacuated from their homes as a result of the emergency.

Photo Credit: AP Photo/The Canadian Press, Paul Chiasson

This case study illustrates the range of services that volunteers can provide in response following the aftermath of a sudden catastrophe. As per agreements with the Province of Québec and most municipalities in the province, the Canadian Red Cross (CRC) in Québec is responsible for supporting authorities and first responders in the event of an emergency. In addition, with needs sometimes continuing or evolving into a long-term recovery process, the case-study highlights how voluntary organizations, with their reach into Canadian communities, can mobilize resources to support sustained community-based recovery.

The information and pictures presented in this case-study come from internal and external Canadian Red Cross sources.

The First Ten Hours: Volunteers on Site

From the first hours following the evacuation of downtown Lac-Mégantic, CRC provided emergency assistance to meet the basic needs of disaster-affected residents. In the event of a disaster, the role of CRC in Québec is to support public authorities and, as per established agreements, CRC has in each regional county municipality (RCM) a team of volunteers ready to respond at any time.

July 6, 1:15 am an unattended 74-car freight train carrying crude oil rolled down a grade from Nantes and derailed downtown Lac-Mégantic, resulting in disastrous fire and explosions.

July 6, 1:30 a.m. local CRC volunteers notified Red Cross Call Centre about the disaster to mobilize support.

At 3:47 a.m. the Director of Disaster Management team with CRC in Québec received a formal request from Sécurité publique du Québec to provide support. CRC activated its Emergency Response Plan and very quickly leapt into action assembling its mobile rapid response unit to send to Lac-Mégantic. The unit carried emergency equipment including more than 700 cots, blankets, pillows and hygiene kits to help displaced residents.

A reception centre and shelter were opened by CRC at the Montignac secondary school, located in Lac-Mégantic, to help people impacted by the tragedy and provide them with immediate care. The Red Cross also set up a call centre in Montreal to help raise funds for the relief effort.

For many local volunteers, emergency response also meant taking care of family members, friends and acquaintances - and in some cases, deal with the news of loved ones who were missing. The Le Granit CSSS (Centre for Health and Social Services) psychosocial responders were present at the Red Cross

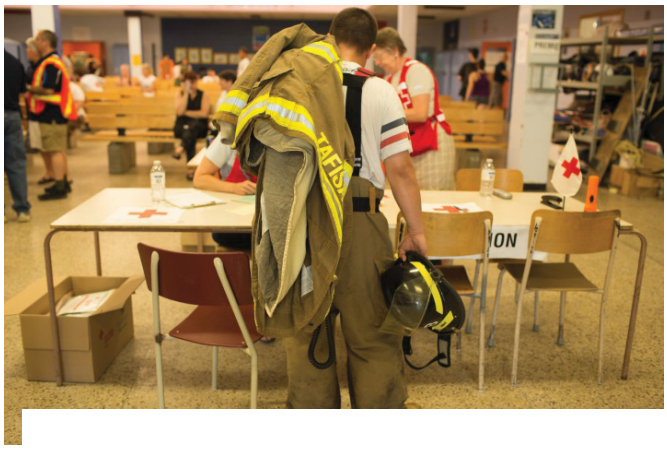
reception centre and together, with Red Cross volunteers, joined efforts to lend an ear to and comfort evacuees, identify needs, and quickly assist people in distress. This partnership enabled the psychosocial responders to swiftly direct not only evacuees, but also local volunteers in need of support, towards the right resources.

By 8:30 a.m., The on-call staff, who provided support to the team of volunteers deployed on-site as soon as disaster struck, mobilized additional volunteer resources from neighbouring areas (Sherbrooke, Beauce-Sartigan).

By 9 a.m., Red Cross emergency teams comprised of personnel specialized in coordination arrived at Lac-Mégantic, followed by one of the two mobile Emergency Response Units (ERU) that the Red Cross keeps strategically pre-positioned in the province so as to deploy them rapidly in the event of an emergency. The ERU carries all the equipment needed to provide shelter to individuals and households (cots, blankets, pillow, hygiene kit, etc.)

At 11 am, a shelter with a capacity of 500 people opened its doors with three main areas (families, people with domestic animals and people with health issues and special needs.) As many people were unable to find alternative lodging, more than 200 people stayed at the emergency shelter during the first week. The shelter closed on July 14 and 20 people who still needed lodging were relocated in more permanent housing in partnership with the Direction du rétablissement du ministère de la Sécurité publique du Québec.

Spontaneous Volunteers from the Community



To mitigate the shortage of accommodation and alleviate transportation challenges, the Red Cross prioritized recruiting residents from Lac-Mégantic and surrounding areas who spontaneously offered their help. More than 150 people from the region of Le Granit were trained as individual case workers to meet with evacuees and those affected by the disaster to assess their needs.

As many first responders, EM professionals, and volunteers came to help, there was suddenly a shortage of available accommodation in the immediate vicinity of Lac-Mégantic. The Red Cross facilitated alternative lodging solutions including co-sharing of available temporary accommodations and stays at Bishops University in Sherbrooke (100 km from Lac-Mégantic). The Red Cross also arranged for transportation for the various responders.

After 2-weeks, nearly 200 volunteers from all over Quebec had been mobilized. Every day, 80 volunteers were on site to meet with people impacted by the disaster. The wave of solidarity demonstrated by members of the public and businesses enabled the Red Cross to provide material assistance to meet the needs of all those affected by the disaster, including workers who have lost their job. Volunteers had met with over 1,000 families during that time, for a total of 1,863 people, including 265 children. Nearly 4,500 vouchers or debit cards have been distributed so that families can buy food, personal care items, new clothing or bedding, among other things. In addition, 1000 cleaning supply kits were distributed to evacuated families that received permission to re-enter their home.

Raising funds, with Volunteers

It is estimated that out of the 6,000 residents of Lac-Mégantic, 2,000 were directly affected by the rail disaster. The downtown core had sustained irreversible damages affecting homes and businesses. Lac-Mégantic was unquestionably a community in distress. In situation of major disasters, CRC opens a dedicated trust fund within few hours. The trust was launched as soon as July 6 and responded to the desire of many Canadians to support the Lac-Méganticois.

A total of 20 CRC volunteers based in Québec supported a national scale fundraising campaign, including the future Prime Minister Justin Trudeau who gave a few hours to fundraise! The fundraising was carried-out through social media, CRC website, fund collection physical sites, and by reaching out to existing corporate and individual donors. On July 10, the Canadian Red Cross announced that banks across the country would begin accepting cash donations for the Red Cross to benefit the survivors of the Lac-Mégantic tragedy.

As per CRC's standard practice, regular updates are provided to donors regarding needs, amounts collected and how they will be spent. Within one year, CRC had raised $14.5 million and the provincial and federal governments also disbursed $120 million to support recovery and reconstruction.

Recovery: With and For the Community

An advisory steering-committee with local representatives was put in place to help plan a relief to long-term recovery assistance program fully adapted to the needs of the affected community. The first of such meeting took place on July 19 with three additional meetings held in the first year and then subsequent meetings on an as-needed basis.

The goal of the assistance program was to complement government assistance and items covered by insurance policies held by program recipients. The program was intended not to replace losses, but to implement a multifaceted assistance strategy which would result in direct assistance being provided to one of every two residents of Lac-Mégantic.

The program addressed basic necessities such as shelter, food, clothing, personal care items, baby supplies, physical and psychological care requirements, transport, and job related and business resumption needs. Beyond that, it also covered the specific needs of workers who lost their jobs, grieving families, and children who lost one or both parents. The type of assistance that would be offered and prioritized was determined first and foremost based on the needs of the most vulnerable. Over time, to foster long-term recovery, the program increasingly focused on stimulating the local economy and promoting the Lac Mégantic's recovery through a number of projects (Exhibit 1). These projects consisted in supporting individuals and families, small businesses, and local organizations caring for the community.

Again, to provide this help, CRC has counted not only on its staff but, three years after this catastrophe, on nearly 600 hundred volunteers to support these initiatives, including 150 local volunteers. In the first three months of the recovery phase, nearly 60 volunteers a day provided support in multiple roles including case management, meeting with families, small business owners, families in mourning, distribution of cash cards and vouchers, identifying needs specific to elders, and coordinating with service providers and operation logistics. For the longer-term recovery operations, there were still 25 volunteers a day in the six months following, and 5 to 10 a day for the year following.

Exhibit 1

Summary from Response to Recovery – Three Years Later

3,299 people have been assisted, including:

- **286 workers and students** who lost their jobs
- **254 self-employed workers** and business owners who were evacuated or otherwise affected by the tragedy
- **114 grieving families,** dont **32 children** who lost one or both parents
- **62,800 cash cards** and vouchers have been distributed
- **590 volunteers,** including **150 local volunteers,** participated in the response

Support for:

- **232 businesses**
- **17 non-profit organizations** affected by the disaster
- **51 assistance projects** submitted by non-profit organizations
- **7 healthcare projects** carried out in collaboration with the Le Granit healthcare and social services centre
- **12 education projects** in collaboration with the Hauts-Cantons School Board, its business services division, and Cégep Beauce-Appalaches
- **98 projects** funded through specific support for businesses
- **7 community recovery and reconstruction projects**

	Assistance provided	Assistance planned	Total
Assistance to evacuees, workers who have lost their livelihoods, and grieving families (including emergency assistance)	$4,255,000	-	$4,255,000
Specific support for small businesses	$2,220,000	$280,000	$2,500,000
Community recovery and reconstruction	$500,000	$1,400,000	$1,900,000
Health projects	$1,600,000	$400,000	$2,000,000
Support for job-creating entrepreneurship	$1,514,000	-	$1,514,000
Support for non-profit organizations	$1,120,000	-	$1,120,000
Education projects	$500,000	$50,000	$550,000
Disaster prevention and preparedness	$60,000	$140,000	$200,000
Community support	$120 000	-	$120 000
Fundraising costs (5%)	$736 000	-	$736 000
Total	**$12,625,000**	**$2,270,000**	**$14,895,000***

*Interest generated is reinvested in the Lac-Mégantic Support Fund.

Summary of Volunteer Capabilities

CRC in Québec was asked to identify all the capabilities deployed by volunteers and voluntary organizations for comparison against the list of capabilities developed for the purpose of this assessment report. The following thirteen capabilities were selected:

- ✓ Community Resilience and Preparedness
- ✓ Community Emergency Management Planning
- ✓ Public Information and Warning
- ✓ Disaster Assessment and Situational Reporting
- ✓ Supply Chain management and Logistics
- ✓ Transportation
- ✓ Emergency Food/Nutrition
- ✓ Emergency Shelter/Lodging
- ✓ Emergency Clothing & Sundries
- ✓ Family Services
- ✓ Water, Sanitation, Hygiene
- ✓ Housing Solutions
- ✓ Emergency Reception Centre
- ✓ Economic resiliency and recovery

Case Study 4: A General Search and Rescue Operation in Alberta

Best Practices

- ✓ From lessons learned from previous operations to lessons applied
- ✓ A pre-existing framework for coordination at the provincial level
- ✓ Some arrangements with government in neighboring provinces for the provision of critical services by voluntary organizations
- ✓ A collaborative and complementary approach combining the expertise of multiple organizations and agencies
- ✓ Spontaneous volunteer surge managed by local resources
- ✓ Preparedness and response exercises involving the voluntary sector and government at provincial and municipal levels
- ✓ Response-specific task force and working groups (standards, policies and procedures)

Context

Photo Credit: SARVAC

A search is usually triggered by the RCMP as a result of a lost, missing or overdue individual or a group of people. The responsibility of public safety lies with the Authority Having Jurisdiction (AHJ). This includes RCMP, provincial City and municipal police forces. The AHJ deploys the local Search and Rescue (SAR) group to fill a manpower gap with specialized trained volunteers with local knowledge to assist.

In the case of a provincial disaster in Alberta the Government of Alberta (GoA) would co-ordinate the volunteer response through the Provincial Operations Center (POC). At the time of deployment a member of the provincial SAR association would most likely occupy a seat in the POC and assist with the co-ordination and deployment of SAR resources.

Provincial Government

Through the provincial government comes a support network that includes sustainable and long term funding for specialized training in the disciplines relating to SAR. Other services include in house training in emergency management and municipal and provincial exercises to foster a close and collaborative relationship with GoA , municipalities and volunteer groups. The provincial government is also responsible to broker deals with neighboring provinces to enable mutual aid in the event of a close border disaster or a disaster of such magnitude the it surpasses the capabilities of any one province.

Federal Government

Through the federal government the support network that the Search and Rescue Association of Alberta relies on comes by way of the Search and Rescue volunteer Association of Canada (SARVAC). In turn SARVAC is supported by the National Search and Rescue Secretariat (NSS), which is now a division of Public Safety. Through the NSS and their New Initiatives Fund, SARVAC has been able to standardize SAR training across Canada through newly developed Canadian Standards Association guidelines. The goal of SARVAC is to support the provincial organizations and lead the way in statistical validation of the worth of SAR in the country.

Case 1

This search took place Saturday July 2, 2016. Five SAR volunteers involved.

Description:	Report from RCMP of 5 overdue tubers on the Dismal creek On-Scene Coordinator: Brazeau Regional Search and Rescue
	Attempt to locate 5 tubers on dismal creek. Last known position in dismal creek was half way to destination. Recon the area to determine the best chance of accessing the creek from nearby roads to do confinement and containment protocol. By accessing creek at different locations and doing sound sweeps we were able to locate approximate location of subjects. SAR team was able to access the creek approximately 1 KM from their location and lead the 5 subjects to safety. Alerted 21:28 On scene 23:00 hrs Subjects located at 01:12 hrs Extraction complete 02:30 hrs Debrief and mission complete at 04:00 hrs subjects declined medical attention at Dayton Valley Hospital and returned to their campsite.

Photo Credit: SARVAC

Case 2

This search took place Friday and Saturday October 3 and 4, 2014. There were 7 attendees on day 1 and 27 on day 2.

Day 1

Description:	Over due hunter on an argo. Left home on Tuesday the 23rd of September and last communication was on Saturday the 27. He was due for an appointment in Edmonton on Friday the 3rd and did not return. On-Scene Coordinator: Brazeau Regional Search and Rescue
Secure:	Started search as soon as we arrived on scene with the assistance of D Ericsson in private aircraft and the RCMP fixed wing plane. The search continued Around the subjects vehicle and by air up stream and down stream from the IPP. A warm camp fire was found on the north side of the river. It was investigated by Larry and Karen and ruled out. The heat signature was detected by FLIR. The search continued until 21:00 hrs. and was stood down for the night. Search will resume at 07:00 in the morning.

Day 2

Description:	locate missing hunter OPP 2 On-Scene Coordinator: Brazeau Regional Search and Rescue
Secure:	Resume search for missing hunter OPP 2 The search continued with ATV,GSAR and Equestrian resources at 0800hrs. From the IPP the search concentrated downstream following what we have determined to be the tracks of the Argo in question. The subject was tracked to a position appx 4KM down stream from the IPP. This was used as a easterly boundary for search efforts and horse team continued to track subject to the west towards the IPP along the river. Information was obtained which stated the subject had a hunting draw for the bow season in WMU 338 which is located from HWY 753 west to the Wolf Lake road with the southern boundary being the Pembina river. Search efforts concentrated on the Pembina river and north in the draw area. At 15:30hrs RCMP air services arrived on scene with rotary wing support and set down at the CP for briefing. SAR member Jennifer Smith on board for spotter duty as search resumed. Quad teams searched the areas in red while Horse 1 is indicated on east boundary by green lines and Horse 2 on western boundary by green lines. Air support searched the east area of the river as indicated by east boundary and to the north into the heavily wooded area. At 18:30 MPP set down for debriefing then traveled to Rocky Mountain House for fuel. Horse 1 indicated that they were on the trail of the Argo and would continue to follow. Subject was located at 18:44 hrs. by Horse 1 deceased and pinned under Argo. At 19:50 MPP returned from fueling and transported CST Nordstrom to scene. It was decided to utilize the helicopter for body extraction due to the difficulty and location to access by means of ground transportation.

Photo Credit: SARVAC

A Range of Voluntary Services

The SAR system in Canada provides a wide range of services which include specialized First aid courses, to meet the needs of the subject that is encountered on a mission, to Rope Rescue and Swift Water Rescue as well as helicopter rescue.

Photo Credit: SARVAC

Of special note the time away from work and family comes without monetary compensation and often out of pocket expenses are absorbed by the volunteer.

In Alberta from January 1 to July 31, 2016 there have been:

- 129 search ops
- 2532 Search hours
- 7489 Training hours
- 4940 Community service hours (fundraising, community events)
- 2546 Administrative hours

Conclusion

While it is important to note the operational readiness of the SAR system across Canada is very independent and stand alone with respect to operations (self sufficient) the capability is at the high end of the spectrum when it comes to inter agency co-operation and collaboration. A typical SAR response is resolved in two to twelve hours from first notification of the SAR resource to location of the subject. Most if not all management of the incident in the Alberta model is handled on site by the volunteer SAR manager in close collaboration with the AHJ. As well as missing persons SAR responders have been called upon to assist with evidence searches in criminal investigations. The volunteer SAR responder plays a vital role in providing a trained and professional resource that can serve the people of Canada in a wide variety of ways.

Photo Credit:

Case Study 5: Daylu Dena Flooding (June 2012): A Remote Community Responding

The Canadian Red Cross works in respectful and collaborative partnership with Indigenous communities.
It is in this spirit that we acknowledge the permission that has been granted by the Deputy Chief and Executive Director of Daylu Dena in allowing the Red Cross to share the story of their flood as part of this case study series.

Best Practices

- ✓ Respect to culture and community
- ✓ Cooperation among multiple stakeholders, including the community leadership and local Tribal Council, Red Cross, several departments from Federal, Provincial, and Territorial governments, the community of Watson Lake, Yukon, RCMP, community members and volunteers.
- ✓ Cooperative and effective communication across provincial and territorial borders.
- ✓ Commitment to client needs when there were multiple jurisdictions
- ✓ Leadership and involvement of community members in the initial emergency response, provision of shelter and longer-term recovery efforts.
- ✓ Early warning mitigated negative impact.
- ✓ Existence of an Emergency Action Plan for the community that was followed and adapted according to available community members.
- ✓ After-action review with key community members and stakeholders for lessons learned.

Context

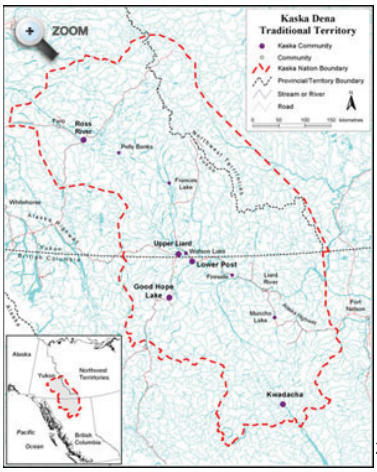
Daylu Dena is located on Highway 97, known as the Alaska Highway approximately 23 kilometers south-east of Watson Lake, Yukon; and is a member of the Kaska Dena Council (KDC).

"Kaska Dena peoples have lived in over 240,000 square kilometres of land in the southeast Yukon, southern Northwest Territories, and north-western British Columbia for tens of thousands of years; long before both recorded history and the existence of provincial land and territorial borders.

While the Kaska Dena people have always viewed themselves as one Nation, provincial and territorial borders now separate Kaska families, and Kaska have been divided into Bands by the Indian Act. The five traditional Kaska groups are now referred to as First Nations.

The Kaska First Nations in British Columbia are: the Dease River First Nation at Good Hope Lake, the Daylu Dena Council at Daylu (Lower Post), and the Kwadacha Nation at Fort Ware, north of Prince George.

The Kaska First Nations in Yukon are: the Liard First Nation at Watson Lake, and the Ross River Dena Council at Ross River."[20]



[21]

The Event:

On Saturday June 9, 2012, the combination of unprecedented heavy rainfalls over a sustained period and rapid snow melt in southeast Yukon caused the Liard River to rise beyond the highest previously recorded levels which occurred in 1972. The community of Daylu Dena's emergency management team, with help from the RCMP and Yukon Department of Highways and Public Works, began urgently evacuating people from their homes at 2:00 a.m. on Sunday (June 10) sending them to Watson Lake, Yukon. A reception centre was set up at Denetia Elementary School at Daylu Dena for residents that stayed behind.

The flooding resulted in 19 homes being flooded and the evacuation of 37 citizens. The community estimated damages of $3.75 million in housing, $5 million in personal and vehicles damage and $5 million in access roads damage. The water treatment plant was also compromised.

[20] http://www.kaskadenacouncil.com/kaska-dena/our-history
[21] http://www.kaskadenacouncil.com/kaska-dena/our-land

Early Warning of Imminent Disaster

The community was notified of approaching floodwaters by Aboriginal Affairs and Northern Development Canada (AANDC)[22] and Emergency Management British Columbia (EMBC). The community had 72 hours to mobilize a response and evacuation. While lead-time helped to mitigate threats to personal safety, flood waters hit some parts of the community more quickly than anticipated; particularly when a newly installed berm was breached.

Photo Credit: Bob Dendoff

Upon receiving the warning, a volunteer community member designated as Team Leader initiated the community disaster response action plan. An emergency community meeting was held, wherein an Information Coordinator was appointed, and mitigation and emergency response duties assigned. With flood waters now precariously close, the community moved with urgency to evacuate those most vulnerable, and began sandbagging to reinforce the berm along the river.

Some community members were evacuated to nearby Watson Lake, Yukon prior to the river cresting. However, the river had also impacted areas in southern Yukon. As such, Watson Lake was responding to residents from the north and the south of the community. There was also the added responsibility of providing assistance to stranded travellers. As a small community the resources of Watson Lake were becoming stretched.

Emergency Response by the Community

The berm broke about 8 a.m. the following morning, resulting in additional urgent evacuations. Flood waters left only a few hours to evacuate eight houses. Community members rallied and organized to assist in the evacuations, and subsequent relocation of the evacuees within the community. The RCMP and Yukon Electric were called in to support the emergency response and to ensure safety of both evacuees and responders.

Despite the advance notice, the actual flooding occurred with devastating force and speed. Both shock and disbelief were reactions from the community. It was critical that leaders from the Action Team and community provided leadership and calm to those who were traumatized.

[22] In 2015, Aboriginal Affairs and Northern Development Canada (AANDC) was renamed Indigenous Northern Affairs Canada (INAC)

An Emergency Operations Centre (EOC) was set up at the Band Office, with all members of the Band Administration and some community members working to support the operation. Having local people working in this capacity enabled an effective response as everyone quickly knew where to go and whom to contact.

Relief and Recovery Operations, Partnerships and Networks

While the emergency response operations were largely carried out by community members, relief and recovery operations were supported by an array of organizations and networks providing assistance. As Daylu Dena is located on the B.C.-Yukon border, agencies from both B.C. and the Yukon were involved in providing relief and recovery services. For example, although EMBC was involved in determining relief and recovery needs, Emergency Social Services (ESS) were provided to some community members out of Watson Lake.

The full range of partnerships included: Kaska Dena Council (KDC), including the Deputy Chief and local Council members, the National Assembly of First Nations (AFN), Yukon Territorial Government (YTG), AANDC, Health Canada, and the following provincial (B.C.) Ministries / agencies: Emergency Management BC (EMBC), Ministry of Health, the Ministry for Aboriginal Relations and Reconciliation (MARR), and the Canadian Red Cross.

Despite some delays in mobilizing outside support for recovery operations due to communication issues and ensuring necessary protocols for permission to enter the community were respected, the networks and partnerships were successful in mobilizing resources and support. The following example shows how the Canadian Red Cross support (CRC) was activated and worked with the community and EMBC, demonstrating the intersection of both networks and partnerships:

The Daylu Dena Deputy Chief contacted the National Assembly of First Nations' Special Advisor - Emergency Issues Management, requesting assistance for flood

Exhibit 2: Disasters do not occur in isolation

response. The AFN then contacted Red Cross who coordinated with EMBC to provide support.

- *The CRC Regional Manager for Red Cross Northern BC & Yukon travelled to Daylu Dena and conducted (in person) needs assessments from July 8 to July 15. Working with the local leadership, the CRC worked with financial donors and government partners to secure assistance for the community impacted. CRC worked with a volunteer from the Emergency Management BC (EMBC) Mobile Support Team (MST) to complete household needs assessments. CRC assessed current and emerging gaps, and the MST volunteer completed the provincial government Disaster Financial Assistance (DFA) paperwork. The interviews were conducted together ensuring that the client only had to "tell their story" one time.*

- *In total, 28 clients (15 files) received assistance.*

- *Emotional impact was repeatedly identified as a need with community members requesting confidential psychosocial assistance. Because of the geography and the "on reserve" nature of this work, determining government jurisdiction made this a difficult request to fulfill. Further to that, due to the small size of Daylu Dena and neighbouring Watson Lake, clients requested that counsellors providing support come from a distance such as Whitehorse or Fort Nelson. It was felt that anonymity may be lost in having local counsellors respond. After a series of discussions, counselling support was provided to the clients through Yukon Territorial Government (YTG).*

Photo Credit: Bob Dendoff

- *Although the number of people impacted was small, due to the geography and changing season, the cost of service provision was anticipated to be high. As such, the Red Cross fundraising team launched a formal "appeal" to support those affected by the flood. Dollars raised were used by the Red Cross and in consultation with community members and leaders to support recovery services that were not covered by the EMBC task number.*

- *Upon the completion of needs assessments, CRC continued to support residents of the community months after the flood event. Support included: food, clothing, items to enable return to work, replacement of damaged freezers (to enable those who hunt and live off the land to properly store food) and Sea Can containers for storage of personal household items while homes were being moved to a new location in the community by INAC.*

Exhibit 3: A Testimonial from the Community

..."Red Cross stood with the Kaska Dena on the ground in time of great need for outside help to face the daily impacts brought about by the historic flood disaster"...

..."I know the members will not forget the invaluable role Red Cross served and carried out. Sometimes words are not enough in view that this untimely event further challenged the trauma we face regarding healing from the Residential School experience. On behalf of Kaska Dena, thank you Red Cross for the help shown in our time of crisis.

So-ga sinla!

Peter Stone, was Deputy Chief of Daylu Dena during the flood

The period of Recovery following a disaster is typically one which requires sustained energy and attention to detail to assess remaining needs, determine which agencies or departments are responsible, complete forms, meet reporting deadlines, etc. This all happened concurrently with repairing of damage and, in some cases, recovering from trauma. Support to affected communities during the recovery phase can be as important as in emergency response and relief phases. It is also at

the end of the Recovery phase that the real understanding of what can be done differently, to build resilience for future disasters, emerges.

The following is a list of key recommendations from a post-event conference call involving the majority of community members, Band Council members, AFN, the BC and Yukon governments and the Federal government:

Some Key Elements / Recommendations Include:

1) Having an effective plan in place enabled the community's response. Prior information to the community to know what to watch for and what to do.
2) Immediate and continual communication from an EOC, or a designated point of contact, with both the community members and the external partners is an important method to reduce stress linked to uncertainty. Note: there is no cell service in the community so communications within Daylu Dena can be limited.
3) Ensure RCMP are involved when determining number of clients and needs re: reception center access.
4) Pre-estbalish stronger approval and administrative processes related to community evacuations (including provisions for the reimbursement of costs such as ESS, transportation, etc.).
5) AANDC personnel were highly effective in working with the community leadership and other partners to: assess the impacted homes, prioritize which client should be re-located (based on vulnerability) and in what order, identify new "real estate" where homes, impacted by the flood, were re-located, and finally ensure the resources were put into action to ensure the timely movement of people and homes.

The Daylu Dena case study and review demonstrates how small scale disaster events can have the same range of complexity and trauma for those affected as larger events that receive global media attention. The person who watches with anxious horror as water rushes into their house and is forced to evacuate experiences the same level of personal trauma and upheaval regardless of whether someone else describes the overall event as large or small scale. The Daylu Dena floods also reinforce the level of coordination required to work with all the different organizations and agencies is similar in small and larger-scale disasters, as well as the essential roles that volunteers play and the powerful impact they have.

Summary of Volunteer Capabilities

- ✓ Community Resilience and Preparedness
- ✓ Community Emergency Management Planning
- ✓ Public Information and Warning
- ✓ Disaster Assessment and Situational Reporting
- ✓ Operational Coordination in Emergency
- ✓ Operational Communication in Emergency
- ✓ Family Services
- ✓ Emergency Reception Centre