A Proposed Analytical Framework for Canadian Whole-of-Government Lessons Learned

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ABSTRACT

Meta-organizational approaches involving multiple government agencies or levels of government, military-civilian combinations, multi-sector or international coalitions are becoming increasingly standard practice for addressing complex operations. One of the challenges in the post-event Lessons Learned period has been the lack of an adequate analytical framework, which has led to the re-identification of key issues in similar lessons learned processes and documents each time. The objective of this chapter is to build upon the existing knowledge base of identified lessons and reduce the learning curve for future analysts. By developing a framework for the collection and analysis of whole-of-government Lessons Learned, future practitioners will have a consistent set of parameters upon which to develop their core collection plans, a structure for analysis, and be able to identify known risks to mission success. Drawing upon Canadian and international experiences from whole-of-government and comprehensive approaches, the chapter provides two considerations for issues analysis: a derived critical topics list for meta-organizational approaches and a capabilities framework that could be applied to lessons learned approaches in these kinds of complex initiatives.

INTRODUCTION

Meta-organizational (an organization of organizations) approaches involving multiple government agencies or levels of government, military-civilian combinations, multi-sector or international coalitions are increasingly becoming standard practice for addressing complex operations. Examples include domestic responses to emergency incidents, military operations in failing or failed states, international responses to humanitarian crises, and security planning for large international sporting and political events. In the aftermath of such events, the analysis of lessons tends to be done by individual military or civilian organizations to improve their own capabilities; in a few cases, senior government leadership has recognized the need for comprehensive lessons learned processes to address the broader inter-organizational perspective with the intention of improving future efforts. One of the Lessons Learned challenges has been the lack of an adequate analytical framework, which has led to the re-identification of key issues in similar lessons learned processes and documents each time.

This chapter draws upon Canadian and international experiences in gathering and analyzing lessons in multi-organizational operations and provides two considerations for issues analysis: a derived critical topics list for meta-organizational approaches and a capabilities framework that could be applied to the analysis of lessons in these kinds of complex initiatives. It begins by describing a selection of Canadian examples and then compares them with international experiences as a means of validation. The result is the creation of a preliminary critical topics list and capabilities framework. The proposed lessons learned framework suggested here is not intended to represent a rigorous research approach to identifying critical

themes in multi-organizational lessons learned; rather it is an initial list of topics from which to identify, test and validate topics as the basis for future analysis.

BACKGROUND

The complexity of national and international problems and the responses to the resolution of those problems is more evident than ever. Globalization and communications have made ideological, economic and security issues from which we might have once felt isolated no longer so. Conflicts, crises and situations in parts of the country or the globe now frequently have national or international implications, and call for collaborative or cooperative resolution and response by multiple stakeholders. The discussion of how or why this occurred is well beyond the discussion here, but suffice it to say, that there is a general need for those stakeholders to address what are referred to as *wicked* problems. These are described as problems that: are difficult to clearly articulate; have many interdependencies and are multi-causal in their creation; the responses lead to further consequences; are "moving targets"; have no clear solutions; are socially complex; do not rest within the responsibility of a single organization; involve changing behaviour; and may be a result of previous and serious policy failure (Australian Government, 2007).

Governments recognize the need to address these problems on various levels and a whole-of-government approach is often required. While the Canadian and allied governments have always collaborated and leveraged capabilities across their respective ministries, departments and agencies, the recognition that this must be a standard approach has become more ingrained in the past 20 years. This shift has likely been due to economic pressures and the adoption of knowledge sharing as a tenet of good business and government, although supporting machinery remains a challenge.   Whole-of-government has best been defined as:

> …whole-of-government denotes public service agencies working across portfolio boundaries to achieve a shared goal and an integrated government response to particular issues. Approaches can be formal and informal. They can focus on policy development, program management and service delivery (Commonwealth of Australia, 2004, p. 1).

Federal organizations are obliged to align themselves, as appropriate, to the 16 outcomes of the Government of Canada's Whole-of-Government Framework. Some of the outcomes that are relevant in the current context are: a safe and secure Canada; a safe and secure world through international engagement; global poverty reduction through international sustainable development; and a strong and mutually beneficial North American partnership (Treasury Board Secretariat, 2005). The Government's Framework and the policies provide the impetus for collaboration among partner organizations, but complexities and wicked problems pose challenges to their realization.

Problem solving and response times within or between nations, where there are multiple levels of government, blurred jurisdictions, and an absence of a detailed governance framework can create complex challenges. The term, Comprehensive Approach (CA), refers to those efforts that require collaboration beyond a single government, particularly when a joint political, military and civilian approach is required to address issues on the international stage. It is hard to nail down a specific definition, but the U.K. House of Commons (2010) thinks of it as a concept with four principles: 1) proactive engagement in complex situations; 2) sharing and understanding; 3) outcome based thinking; and 4) collaborative working. In Canada, this is often thought of in terms of the three D's (diplomacy, defence and development) or the political, military and economic aspects of international engagement. The Comprehensive Approach, therefore, can often involve many players, e.g., more than one nation's military, various political entities including the host nation, non-governmental organizations, police forces, various government agencies, and the local civilian population.

To add to the complexity, each of these entities has their own networks and doctrine. For example, whether alone or in a coalition, militaries have been fighting the "three block war" since the end of the Cold War.[ii] This term refers to the complexity of modern military operations in which warfighting, peacekeeping, and ensuring the delivery of humanitarian aid are all part of a single operation. Just to confuse things, individual organizational cultures have their own language. For example, whereas some U.S. defence organizations might use the terms *complex contingency operations* or *complex operations* to describe military and non-military entities working together, the Canadian Armed Forces will use the term, *JIMP,* or *Joint, Interagency, Multinational and Public* for their concept of operations involving allied forces within the context of the Comprehensive Approach.

Canada has been involved in a number of multi-agency operations or collaborative efforts in the recent past both domestically and abroad. Lessons Learned processes and reports have tended to identify many of the same themes. In these cases, it is not that the lessons are re-learned, rather that they are re-identified each time. This points to a consistency of topics across lessons capturing and analysis activities for whole-of-government, comprehensive approaches, JIMP or multi-agency activities. The objective of this chapter is to build upon the existing knowledge base of identified lessons and reduce the learning curve for future analysts. By developing a framework for the collection and analysis of whole-of-government Lessons Learned, future practitioners will have a consistent set of parameters upon which to develop their core collection plans, a structure for analysis, and be able to identify known risks to mission success. The remainder of the chapter will discuss the basis for that framework.

A FRAMEWORK FOR META-ORGANIZATIONAL LESSONS LEARNED

The approach began with a preliminary scan of Canadian domestic and overseas whole-of-government Lessons Learned documentation. Allied cases were then used to validate the Canadian findings. In some cases, sensitivity of the material examined does not permit full disclosure of the document sources, however, the themes extracted were not considered sensitive in themselves. This review did not necessarily draw upon the more general literature on policy, strategy analysis or evaluation. Nor is this a review of other case studies or best practices. Specific multi-organizational examples are provided in order to draw a preliminary list of and framework for whole-of-government lessons learned.

A Critical Topics List (CTL) is the term used in the military to describe the issues, which if left unmanaged, pose risks to mission success. The Defence Terminology Standardization Board defines it as "*a list of subjects deemed crucial by a commander to focus the data collection effort.*" (Termium, 2014), The additional criteria for inclusion are whether the issue is manageable or can be subject to influence. If it is outside the scope of either of these, then it does not belong on the CTL. For example, in most cases the weather cannot be managed or influenced. A critical issue, however, might reflect the organization's ability to mitigate the impact of weather on operations. There are generally two types of CTLs: a standing list of consistent issues, which must be constantly addressed for business or mission improvement and a mission-specific list, which is unique to the individual situation. The latter is outside of the scope of the current discussion.

Capabilities on the other hand, are:

> …the means to accomplish a mission and achieve desired outcomes by performing critical tasks, under specified conditions, to target levels of performance. Capabilities are delivered by appropriate combinations of planning, organization, equipment, training, and exercises. (U.S. Department of Homeland Security, 2007, p. v).

In other words, capabilities represent the means to counter or mitigate the threats, risks or challenges posed by those critical issues that undermine mission success. The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) is responsible domestically for coordinating

responses to natural, accidental and intentional disasters. As such, they must interact with multiple levels of government and the private sector. To address this complex environment FEMA devised the Target Capability List, which identified 6 core capabilities: planning; communications; risk management; community preparedness and participation; intelligence, information sharing and dissemination (ibid., 2007). While all are deemed to be fundamental to the country's ability to prevent, prepare, respond and recover from serious incidents, a basis tenet is that no one organization should provide individual capability alone; it is a collective responsibility.

Australia has also considered a framework for enhancing the ability of partner departments to succeed in joint missions. In its report, *Connecting Government,* the Australian Government (2004) recognized the real challenges of working in whole-of-government, while also recognizing that to do so provides the country with real strengths. The report proposes a four-element framework: 1) Supportive Structures and Processes, including issues around governance; 2) Supportive Culture and Skills Base, including training and incentives for sharing and collaboration; 3) Facilitative Information Management and Infrastructure, for decision-making, information sharing and ease of collaboration; and 4) Appropriate Budget and Accountability Frameworks, which would require additional flexibilities. More recently, the Australian Department of the Attorney-General has been examining a framework specific to national security preparedness and response. They are considering the presence of 7 capabilities: 1) Governance, Strategy and Planning; 2) Capability Development; 3) Resource Management; 4) Communities; 5) Communications; 6) Command, Control and Coordination; and 7) Operations (Cuthbert, 2012).

The private sector too has recognized the need for a different management approach to whole-of-government and joint mission collaboration. Booz Allen Hamilton has identified five aspects to consider for successful Mission Integration. These capabilities are in the areas of: Policy, Strategy and Planning; Management and Budgeting; People and Culture; Information Technology; and Operations (Sulek, 2009). The authors indicate that these are inter-dependent and recognizing the complexity of joint efforts, warn against trying to solve problems independently in any individual area. Further they espouse the importance of using this framework in all three phases of an effort: in planning, execution and post-event analysis of lessons.

In the military Lessons Learned literature, there are some existing and tested examples of capability frameworks. Specifically NATO and its members use the DOTMLPF-I capability spectrum, or a variation, in which the acronym stands for: doctrine, organization, training, materiel, leadership and education, personnel, facilities, interoperability (NATO, 2011, p. 30). By analyzing the issues against this list, Lessons Learned practitioners can assess which capabilities need modification to accommodate the resolution of serious issues. For example, an incident in which someone was injured during a training exercise could be analyzed against this capability spectrum in order to determine what capability gaps led to the accident. This analysis might then produce recommendations that doctrine needed updating, that facilities were insufficient to prevent accidents or that interoperability between units prevented communications that would have otherwise provided timely on-site response.

Hallett and Thorngren (2011) have revisited and revised this same framework for CA. Given that CA is defined by being interagency, multi-actor and operating within a complex environment, the authors propose that the same capabilities would have different priorities resulting in what they call an ITOPLFDm framework. The authors suggest that *interoperability* becomes the most critical capability in the interagency environment, with inter-agency *training* close behind, to ensure a "blending of multiple perspectives." (Hallett & Throngren, 2011, p. 42). As well, *organization* is important because of the need for coordination in determining who will lead which efforts. Another critical item is *personnel*, because of the requirement for flexibility of staff, the ability for rapid deployment, and ensuring the correct skill sets are in place. *Leadership* follows in that CA requires leader-to-leader interaction, which is not generally the case in single organization operations where there is a single chain of command.

Down the list are *facilities* as they pertain to the optimal way for multiple groups to work together, e.g., should they be co-located or closely located? Towards the end is *doctrine*, which is important in that it refers to the documentation of policies, procedures and agreements for inter-agency operations.   To not capture these is to risk defaulting to a tacit understanding, which could lead to misunderstanding, confusion, and serious consequences. The challenge is how to capture and document these operational arrangements and processes in a cross-functional environment. Finally, and less significant, is *materiel*. The authors even de-capitalize it to emphasize the importance of avoiding the temptation to create new materiel, i.e., equipment or supplies, rather than using what has already been devised within other organizations.

Together, the Critical Topics List and the Capabilities List would provide the beginnings of a holistic framework to guide, build, maintain and assess inter-organizational issues and strengths to achieve common missions. One of the challenges is to distinguish between the two, as both critical issues and capabilities appear as themes in meta-organizational lessons. In the next section, we will examine real examples from lessons learned gathering exercises and derive potential inclusions for each list.

LESSONS LEARNED THEMES
A sample of lessons learned reports were gathered and collated to identify trends. Issues represented domestic whole-of-government events and CA operations for Canada and internationally.   Each identified theme will be defined and discussed as they appear. In total, eleven themes were identified:

1) Command and Control;
2) Governance;
3) Mandates, Roles and Responsibilities;
4) Information Sharing;
5) Joint Planning;
6) Joint Exercising and Training;
7) Organizational Culture and Personalities;
8) Public Communications and Media Relations;
9) Coordination;
10) Common Vision, Mission, Strategy and Objectives; and
11) Evaluation and Reporting.

Emerging issues will be classified with respect to each relevant theme in the following section.

Domestic Canadian Whole-of-Government Events
The author has facilitated a number of Lessons Learned processes, three examples of which are provided here. These include an after event review of whole-of-government security planning for a large domestic sporting event and two After Action Reviews (AAR) from the Radiological-Nuclear (RN) Science Cluster from the Canadian Safety and Security Program. The latter is a whole-of-government program designed to enhance public safety and security in Canada. The RN Cluster is a *de facto* community of practice that provides scientific advice and analysis to operators and decision-makers about the threats posed by RN materials, should these agents be used for nefarious purposes. The Cluster can also be called upon to deal with accidental events. The first example in Table 1 is derived from an in-depth data collection and analysis approach from federal, provincial, municipal and non-governmental sources after the Vancouver 2010 Games (V2010) (McIntyre & Kaminska, 2011). The second example is the result of an AAR in the aftermath of the Great East Japan Earthquake in March 2011 and the subsequent incident at the Fukushima Daiichi Power Plant, for which the RN Cluster provided advice and assistance domestically. The objective of the AAR was to review the ability of the member departments from the Cluster to provide advice and support to stakeholders in the aftermath (DRDC, 2012).[iii] The third example comes

from an AAR of Exercise Initial Thunder in Vancouver in 2008 (ExIT-08), which was the first preparedness exercise for the science community running up to the Vancouver 2010 Winter Games. (Lavigne, 2009).[iv] In addition to the RN Cluster members, other local and provincial organizations were asked to play a role in order to increase connectivity and realism. Table 1 summarizes the key themes from these three examples. The numbers in the table refer to the eleven themes listed previously (e.g., 1 for Command and Control, 2 for Governance).

Table 1: Main themes arising from lessons learned activities in Canadian domestic examples. (Notes in italics provide context where required.) The shaded area at the bottom indicates issues with no obvious consistency across the samples.

Security Planning for V2010	Domestic Response to Fukushima	Exercise Initial Thunder (ExIT-08)
Command, control and communications[1]	Command and Control[1]	Command and Control[1]
Governance[2]	Governance[2]	
Mandates, roles and responsibilities[3]	Roles and Responsibilities[3]	Mandates, roles and responsibilities[3]
Information Sharing[4]		Information Sharing[4]
Joint Planning[5]	Readiness[5]	Joint Planning and Shared Experience[5]
		Protocols and Procedures[5]
Exercises[6]		Knowledge and training[6]
Organizational Culture and Personality[7]		
	Public Affairs[8]	
	Coordination[9]	
Public Safety/Security Interface	Communications (*Need for Equipment*)	Interoperability *(of scientific equipment)*
	Knowledge and Advice	
	Deployment	

Each of these Lessons Learned processes identified common issues as well as some that were unique to the particular situation. For example, the role of organizational culture and personality during the large, complex security planning for the V2010 Winter Games was less evident in the other two examples, which had more homogeneous participants and were on a smaller scale. This element, however, appears in later examples of other large-scale lessons learned. Issues around deployment arose in the Fukushima situation because it presented as an emergency, whereas planned events have more time to work out such issues. Interoperability of scientific equipment is a good example of a critical topic which would be unique to this situation, and one which could be resolved before the next exercise or event. The common emerging themes in these examples are:

1) The need for clear **Command and Control.** This has been defined by Pigeau and McCann, (2002, p. 56) as the following: "Commanding is the act of creatively expressing will to accomplish the mission. Controlling is the act of enabling command and of managing risk using existing structures and processes." The two are intrinsically interlinked. In the current context, the issue revolves around how the mission intent is effectively expressed in a collective situation and how it can be accomplished using the multiple structures and processes available.

2) **Governance**. Governance is a difficult–to–define term because it varies in usage from its original context within government to individual uses in various domains. For the purposes of the current

discussion, the working definition provided by the Institute on Governance, a Canadian non-profit organization, will be used. Simply, "Governance determines who has power, who makes decisions, how other players make their voice heard and how account is rendered." (2014, para. 3).

3) Clarity and understanding of organizational **Mandates, Roles and Responsibilities**. One of the challenges is not so much that these over-lap among organizations, or that they even conflict, but that those involved do not have a solid knowledge and understanding of the mandates, roles and responsibilities of their own or others' organizations.

4) **Information Sharing**. This refers to the ability to share and exchange information, primarily through electronic interoperable systems, which are sadly often lacking, but also refers to barriers caused by policy or security issues, e.g., intelligence.

5) **Joint Planning.** The preparation of joint, whole-of-government, or comprehensive responses require some degree of coordinated planning to ensure effective delivery of operations and results. This is not to dismiss planning within individual organizations, which is necessary, but without the joint pre-planning, operations are likely to conflict.

6) **Joint Exercises and Training.** A common theme in preparation is joint exercises and training to establish methods of coordinated operations and as a mechanism to develop trusted relationships and educate staff about one another's cultures and organizations.

Canadian Whole-of-Government International Events

Canada has been involved in a number of overseas deployments in recent years in both conflict and humanitarian situations. Three case studies have been examined for the presence of common issues. Beginning in 2008, Canada's policy approach to its engagement in Afghanistan was defined by six priorities and three signature projects, involving the military, diplomatic and development agencies.[v] Towards the end of Canada's engagement in Afghanistan, Unterganschnigg (2013) facilitated a joint military-civilian lessons learned process with the Kandahar Provincial Reconstruction Team and the Task Force Kandahar Headquarters. She identified six common themes impacting the efficiency of both whole-of government and international efforts. These are listed in the first column of Table 2. The second example, also from the Afghanistan experience, represents an unpublished analysis by the author and colleagues of the overall whole-of-government experience (McIntyre, 2012). The final example is from an independent consultant's report on Canada's response to the 2010 earthquake in Haiti (McGill, 2010). This example is different from others in that it is from the viewpoint of a particular organization; however, it is useful because it draws upon the Department of Foreign Affairs and International Trade's list of critical topics typically used in their After Action Reviews.

Table 2: Main themes arising from lessons learned activities in Canadian international examples. Numbers indicate emerging themes. The shaded area at the bottom indicates issues with no obvious consistency across the samples.

Afghanistan in Theatre	Afghanistan	Haiti Earthquake
	Unity of Purpose[1]	
	Cross-organizational Integration and Mission Interpretation[1]	
Civilian-Military Organizational Structures and Accountability *(Roles and Responsibilities)*[2,3]	Unity of Effort[2]	
Budget, Funding, Contracting[3]	Whole of Government and Accountabilities *(Machinery of Government)*[3]	
Information Technology *(for*		

Information Sharing) [4]		
(Common) Processes, Mechanisms, Agreements, and Planning[5]		Standard Operating Procedures[5]
People, Culture, Relationships and Training[6,7]		
	Public Communications[8]	Communications and Media Relations[8]
		International Coordination[9]
		Civil/Military Coordination[9]
		Headquarters and Field Coordination[9]
		Independent Strategic Support Team *(National Coordination)* [9]
		Coordination with Provinces, Territories, Municipalities and Private Sector *(Non-federal)* [9]
Inconsistent Vision, Goals, Strategy[10]	Common Strategic Intent and Objectives[10]	Quality and appropriateness of Humanitarian and Recovery Assistance Response *(Policy/Response Consistency)* [10]
	Benchmarking and Reporting[11]	
	Barriers and Incentives to Whole-of-Government Engagement	Consular Response
		Human Resources (*Management*)

The first six themes identified in in the domestic examples in Table 1 appear again in these international examples, and allow the provision of more definition. One of the roles of command in **Command and Control** is to ensure "Unity of Purpose," i.e., the assurance that all involved understand the mission and work in an integrated and unified fashion towards the same outcomes. **Governance**, particularly as it relates to how government departments are funded, accountable and share resources, plays a critical part in the inter-organization management. Organizational structures at all strategic, operational and tactical levels require a clear understanding of **Roles, Responsibilities and Mandates** if they are to operate in a collaborative environment. **Information Sharing**, particularly in terms of the technology, appears consistently throughout. **Joint Planning** is identified in these examples as important to produce explicit agreements and documentation. Finally, **Joint Exercising and Training** is identified as an effective and important means of building knowledge and relationships.

Some new themes appear with these examples. Some were also present in the domestic examples, namely, **Organizational Culture and Personalities, Public Communications and Media Relations, and Coordination,** while one new theme also emerged, **Common Vision, Mission, Strategy and Objectives**.

7) **Organizational Culture and Personalities**. Complex operations are ripe for inter-personal and inter-organizational conflict for many reasons. One operational planner leading up to the V2010 Winter Games claimed that two of the biggest threats to security planning were "hubris and tribalism." (Koch, 2010). Bellavita (2007) said much the same about previous security planning events elsewhere. Others, such as Thompson (2008) have explored the important role of personality type in coalitions, specifically the ability to be comfortable with uncertainty and new

concepts. The important attribute of boundary-spanning in leadership within the Comprehensive Approach has also been explored (Hughes et. al., 2011).

8) **Public Communications and Media Relations.** Common messaging across multiple organizations is very challenging, particularly as key messages will vary according to different organizational mandates and missions. Other challenges arise because of varying authority to speak to the media; some organizations are delegated the responsibility and freedom to speak in the field while partner agencies, even those in the leadership role, might not have that authority. The fast evolving world of social media will also be a factor in establishing clear and consistent messaging by all partners within a single operation.

9) **Coordination.** The appearance of this theme might suggest a reluctance to integrate into a larger Comprehensive Approach. Louise Lemyre (2011, p. 47) devised a decision-making model in which organizations, depending on the complexity of the tasks or operations, either: "coordinate" their efforts through parallel operations and information exchange; "cooperate" through joint problem definition, decision-making and coordination of resources; or "collaborate" by sharing a vision, defining roles and sharing in results. This could also speak to the general problem of uncommon nomenclature among the partners.

10) **Common Vision, Mission, Strategy and Objectives.** Although these concepts together might be considered as a sub-set of Command and Control or Governance, they appear frequently enough in the literature as an issue to merit consideration on their own. These strategic elements are the driving forces, glue, and perhaps even the critical success factors that hold multi-agency approaches together.

With this list from a small Canadian sample we will turn to the allies to see if there are consistencies across their experiences.

Allied Domestic Whole-of-Government Issues

Whole-of-government and comprehensive approaches to conflict, stabilization and humanitarian situations are common across the world. As a result, four compilations of national themes from lessons learned in multiple international cases were also analyzed.   These included New Zealand's recent responses to domestic disasters caused by the Pike River Mine Disaster, the Christchurch earthquake and the grounding of the MV Rena, all of which led to the collection of lessons learned and the creation of emergency response checklists (New Zealand Defence Force, 2013). The lessons, many of which are specific to disaster relief, are presented in the first column of Table 3. Similarly, after a particularly difficult year, Australia convened a workshop to gather the main lessons and themes from their experiences with national security incidents. These are found in the second column. Donahue and Tuohy (2006) compiled the results of a number of major U.S. incidents in the previous five years, including Hurricane Katrina, 9-11, the Oklahoma bombing, and others. The issues, which they say have been repeatedly identified, as well as mitigating issues, are presented in the third column. Finally, the Emergency Planning College in the U.K. identified "persistent lessons identified" from 32 emergency or major incidents since 1986 (Pollock, 2013). These are listed in the fourth column.

Table 3: Main themes arising from lessons learned activities in allied domestic whole-of-government examples. Numbers indicate emerging themes. The shaded area at the bottom indicates issues with no obvious consistency across the samples.

New Zealand Disaster Response	Australia National Security	U.S. Disasters	U.K. Major Incidents
Command and Control[1]	Leadership and Command[1]	Uncoordinated Leadership[1]	Lack of Leadership[1]

			Failure to Assume Responsibility (all levels)[1]
Civilian-Military Mutual Understanding (*Roles and Capacities*), Coordination and Communications[2,3]	Governance[2]		
	Inter-Organization Communications *(Interoperability and Language)*[4]	Failed Communications *(Interoperability)*[4]	Inadequate Communications between Stakeholders)[4]
	Information Management Compatibility[4]		
		Weak Planning[5]	
	Cross-organizational Training and Development[6]	Learning and Teaching[6]	Inadequate Training[6]
		Training and Exercising[6]	
	Organizational Culture[7]	*(Cultural)* Motivation for Change[7]	
Media and Public Information[8]	Media Relations[8]	Poor Public Relations[8]	
	Coordination and Collaboration: Relationship Management[9]		
	Evaluation[11]	Review and Reporting[11]	Monitoring/Audit[11]
Legal Responsibilities	Legal Issues and Risk		
	Resourcing	Resource Constraints	
Role of Liaison Officers	Public Information and Education		Complexity of Response Structures
Personnel Support	Recovery of Communities		Blame Culture
Rapid Needs Assessment			Failure to Learn Lessons
Logistics and Infrastructure			Implementation Failure
Disaster Victim Identification			
Transition and Transfer			

All but one of the previously identified issues for Canada appear in these national whole-of-government examples. It would appear that the strategic issue, **Common Vision, Mission, Strategy and Objectives,** would be more applicable in the Comprehensive Approach examples as it does not appear in either the

Canadian or allied examples. Table 3 does contain some issues that are specific to disaster response, such as legal responsibilities, resourcing and interaction with communities. One new issue, however, does appear for the first time here:

11) **Evaluation and Reporting.** Some of the reports identify the need for measures of effectiveness, evaluation, and reporting, both to convey success but to also learn from past experience. This is also found in at least one of the Canadian examples, but until the issue appeared in the international examples, it seemed to be an outlier.

Allied Comprehensive Approach Examples
The examples taken from the OECD's guidelines (2006) are shown in Table 4. These represent *de facto* doctrine for development work internationally. The other two examples in the Table are taken from unreleased analyses by agencies in the U.S., which cannot be identified in the open literature.

Table 4: Main themes arising from lessons learned activities in allied international Comprehensive Approach examples. Numbers indicate emerging themes. The shaded area at the bottom indicates issues with no obvious consistency across the samples.

OECD	Case Study One	Case Study Two
Coordination (Political Leadership and Lead Coordinating Role)[1]		
Overall Framework[2]		
	Coordination of Roles and Responsibilities[3]	
Information Management Systems[4]		
Joint Analysis[5]	Joint or Embedded Planning[5]	Civil-Military Relationships *(Personalities)* Planning and Training[5, 6]
	Pre-deployment Training[6]	Pre-deployment Training[6]
		Interagency Relations *(Cultural Differences)*[7]
		Relations with the Host Nation *(Cultural Differences)*[7]
		Relations with Allies *(Cultural Differences)*[7]
		Relations with Non-Governmental Organizations[7]
	Communications and Coordination[9]	
Joint Operational Strategies[10]		Understanding of Mission and Strategy[10]
Mechanisms for Policy		

Coherence and Joined-Up Working[10]		
	Measures of Success[11]	
Incentive Structures	Continuity of Operations	Personnel *(Management)*
		Funding *(Differences between Agencies)*
		Relations between the Field and Headquarters

No new themes emerge with the introduction of these examples. In fact the importance of some of the earlier themes seems to be less, e.g., public and media relations do not appear at all. Joint planning and training, as well as the role of organizational and host cultures, emerge with more frequency. There are possibly some issues that would require more in-depth analysis to determine if they were actual themes, e.g. personnel management and funding or resourcing, both of which have appeared in other tables but in different contexts. With this small sample, we will now consider a consolidated (or aggregated) list of critical topics and capabilities.

DISCUSSION

Space did not allow for a complete explanation of each of the issues as they were identified in the tables. The author categorized them according to an assessment from the original documents. As critical topics, the stated themes act as risks to mission success and are restated here accordingly:

1) Command and control structures are inappropriate for complex operations.
2) Governance structures are undefined or inadequate for complex operations.
3) Organizational mandates, roles and responsibilities are not clearly understood by stakeholders.
4) Information sharing between organizations and individuals is hindered by the lack of interoperable systems, vocabularies, policies and processes.
5) Planning is done by individual organizations in isolation or with insufficient collaboration.
6) Joint exercising and training prior to operations is either non-existent or insufficient.
7) Organizational cultures and personalities clash.
8) Organizations have varying approaches to public communications and media relations, which can confuse the message and the audience.
9) Coordination of efforts between stakeholders is disjointed.
10) Organizations and individuals do not share a common vision, mission, strategy and objectives.
11) Evaluation and reporting processes are inadequate or inappropriate for the mission.

In reviewing this list of 11critical topics, it would be interesting to determine if they were identified as issues because they were, in themselves, undeveloped capabilities, or because of the lack of capability management frameworks in the planning stages begat the issues. Table 5 lists the elements of the five previously mentioned capability management frameworks

Table 5: Comparison of a Selection of Capability Management Frameworks. The numbers indicate common capabilities across the frameworks.

FEMA (2007)	Australia (2004)	Booz, Allen Hamilton (2009)	Hallett and Thorngren (2011) (Adapted from	Australia National Themes (2012)

			NATO)	
Planning[1]	Structures and Processes, including issues around governance[4]	Policy	Interoperability[3]	Governance, Strategy[4] and Planning[1]
Communications[2]	Culture and Skills Base, including training and incentives for sharing and collaboration[5]	Strategy[4] and Planning[1]	Training[5]	Capability Development[5]
Risk management	Information Management and Infrastructure, for decision-making, information sharing and ease of collaboration[3]	Management and Budgeting[6]	Organization	Resource Management[6]
Community Preparedness and participation	Budget and Accountability Frameworks[6]	People and Culture[5]	Personnel	Community (Engagement)
Intelligence		Information Technology[3]	Leadership and Education[5]	Communication (Public and Media)[2]
Information Sharing and Dissemination[3]		Operations	Facilities	Command, Control and Coordination
			Doctrine	Operations
			materiel	

The basic capabilities which are common across this sample of frameworks and are also applicable in meta-organizational, whole-of-government, and comprehensive approaches seem to be:

1) Planning (specifically joint)
2) Communications (as it pertains to the media)
3) Information Sharing (interoperability and communication between organizations)
4) Governance (covering strategy, structure, processes)
5) Education, Training and Exercising (specifically joint)
6) Management (including finances and accountability)

Two capabilities, which are not common across the examples but may be covered by Governance, are Command, Control and Coordination, and Leadership. Further work is required to determine whether they should stand on their own as individual capabilities.

FUTURE RESEARCH DIRECTIONS

The work presented here is descriptive rather than empirical and requires testing through future analysis. As many questions arise as might be answered. Is this a complete list from an anecdotal point of view? Are the critical topics listed supported by more rigorous research? What are the missing gaps from either

the critical topics or capabilities lists? Are some of the concepts actually one-in-the-same, e.g., is coordination actually a part of Command and Control, rather than a separate concept?

The next steps would involve a more rigorous analytical study, which could benefit from a broader sample of lessons learned reports and studies. These themes could be used as a priori codes for coding in addition to identifying emerging codes during analysis. Definition of the issues, bservations and lessons revealed in relevant reports would ensure consistency of meaning across each theme. While the critical topics presented here may represent the main issues in meta-organizational lessons learned, they require much more characterization to be substantiated. Similarly, the capability framework requires more analysis. The literature contains many strategic analyses and observations by individuals who have first-hand experience in complex operations and by keen observers of whole-of-government or comprehensive approaches. An analysis of their recommendations as to the critical success factors would add substance and value to the initial findings of this study.

Further research is also required into some of the concepts and terms that lack clarity because of the complexity brought to meta-organizational operations and events. For example, *governance* is a term that has multiple definitions depending on the domain. In the current context, its meaning may be defined, but it certainly is not universally understood in the same manner. One thing that is clear from the lessons learned literature is that complex operations call for new and innovative approaches. *Command and Control* is another term that may have too limited a meaning. Comprehending and addressing the critical topic list will require a clear understanding of the relevant terminology.

CONCLUSION

This chapter has attempted to provide a framework that can be used for future analysis of meta-organizational lessons learned processes. The suggested critical topics list can be used as a starting point for creating lines of inquiry or research questions. This is not to exclude other possible issues that will arise, either as unique to a given situation, common to particular kinds of events (e.g., emergency response), or as additional, general trends, not identified in this analysis. The capability management framework list can be an initial model for further analysis by asking the question, "What capabilities are lacking that this critical issue threatens the success of the mission," and then, "How can the capability be improved for future success? More in-depth analysis is needed on the framework, but by trialing the framework in future analysis, it can also be tested as an appropriate mechanism for meta-organizational lessons learned processes.

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ADDITIONAL READING SECTION

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KEY TERMS & DEFINITIONS

Capabilities: A set of skills, abilities and structures that can be used collectively to address complex problems.

Critical Topics List: An inventory of defined risks or threats to mission success used in lessons learned as a means of analysis and risk management.

Comprehensive Approach: A multi-organizational concept to address complex issues or operations and which is generally thought to have four characteristics: 1) proactive engagement in complex situations; 2) shared understanding; 3) outcome based thinking; and 4) collaborative working. (House of Commons (2010, p. 11)

Lessons Learned: An organizational learning process that draws upon the experience and knowledge of the participants to collect, analyze, recommend and implement sustainable and improved processes.

Meta-organization: An organization whose members are other organizations and which has an umbrella governance, e.g., NATO, the United Nations.

Whole-of-Government: Multiple government departments and agencies working together in a structured way to address wicked problems or complex operations.

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[i] This chapter is based on early work by McIntyre & Levesque (2012).
[ii] Originally attributed to U.S. Marine General Charles Krulak, but broadly used by allied generals.
[iii] See Canadian Nuclear Safety Commission (2013) for the lead agency's lessons.
[iv] See Kramer,(2009)for a published account of the exercise and one agency's lessons.

[v] Canada established six priorities and three signature projects as objectives and as measures of effectiveness. These were: 1) security and law and order by building the capacity of the Afghan National Army and Police; 2) providing jobs, education and essential services; 3) humanitarian assistance; 4) border security; 5) building institutions to support democratic processes and 6) supporting political reconciliation to counter insurgency and bring peace. The three signature processes were: 1) rebuilding the Dahla Dam and irrigation system; 2) rebuilding schools and training teachers in Kandahar province; and 3) eradicating polio nationally. (Government of Canada 2014).