



Emergency Management Framework for Agriculture in Canada

Federal, Provincial and Territorial
Emergency Management Framework Task Team

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Emergency Management Framework for Agriculture in Canada

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PREAMBLE

Canada's agricultural operating environment is rapidly evolving, and the factors that can lead to emergencies are increasingly complex and diverse. As a result, emergency events are growing in both number and impact, with the potential for significant implications that go beyond economic concerns.

Federal, provincial and territorial (FPT) governments are committed to protecting Canada's agricultural resources, and, given the changing operating environment, to improving the current approach across the emergency management continuum (prevention and mitigation, preparedness, response, and recovery). To this end, in July 2014, FPT ministers of agriculture directed the development of a comprehensive and collaborative approach to emergency management, which resulted in the development of the *Emergency Management Framework for Agriculture in Canada* (the Framework). This Framework recognizes the current realities faced by the agriculture sector, and proposes a stronger, more collaborative approach to emergency management, with an increased focus on prevention and mitigation.

As emergency management is most effective when it reflects the combined thinking of governments and stakeholders, a comprehensive public consultation process was held in early 2016, targeting representatives from across Canada's agriculture sector.

Stakeholder engagement was enthusiastic, with participants from across the country offering valuable insights. Those consulted validated the Framework as providing the appropriate strategic direction, with many highlighting their strong desire to make this a reality and providing feedback and ideas for doing so.

By implementing the Framework, Canada's ability to address risks and emergencies along the continuum from prevention to recovery will be continuously improved, therefore strengthening the resilience, sustainability and competitiveness of the agriculture sector.

1.0 INTRODUCTION

1.1 Emergency Management (EM)

The EM continuum consists of four pillars: prevention and mitigation, preparedness, response, and recovery. These four pillars are linked and work together in advance of, during, and after an emergency¹ event.

Prevention and Mitigation: actions taken to identify, prevent and reduce the impacts and risks of hazards before an emergency occurs.

Preparedness: actions taken to increase the ability to respond quickly and effectively to emergencies and to recover more quickly from their long-term effects; involves actions taken prior to an event to assure that the capabilities and capacities to respond are in place.

Response: actions taken during or immediately after an emergency or disaster to manage the consequences.

Recovery: actions taken after an emergency or disaster to re-establish or rebuild conditions and services to an acceptable level.



Activities under each of the four pillars may be undertaken in sequence or at the same time as those under the other pillars, but should not be taken in isolation. Emergency management in an agriculture setting requires a comprehensive all-hazards approach (natural and human-induced risks) to coordinate and integrate the activities of these four pillars in order to maximize the resilience of the sector. Assuring strong and seamless linkages across these pillars is critical to EM effectiveness and sustainability.

1.2 Emerging Challenges: the Agriculture Risk Landscape

The agricultural operating environment is rapidly evolving, and the factors that can lead to emergencies are increasingly complex and diverse. Some key factors influencing this changing operating environment include, but are not limited to:

- Demographic shifts and changing global trade patterns, resulting in increased demands for, and volumes of, new commodities from new sources as well as the emergence of new markets for Canadian products abroad.
- Climate change, resulting in both extreme weather events and in Canada's environment becoming more suitable for pests and diseases that were previously of low risk due to a colder climate.²

¹ See Annex 1 for Glossary of Definitions.

² UNEP Frontiers 2016 Report. Emerging Issues of Environmental Concern.

http://web.unep.org/frontiers/sites/unep.org.frontiers/files/documents/unep_frontiers_2016.pdf

- The increasing consolidation, concentration and integration of the Canadian agriculture sector, which may increase vulnerability by magnifying the impact of emergency events on the sector as a whole.
- Technological changes and advancements, which have increased the ability to predict, detect and monitor risks, but may also present challenges if advancements outpace the ability of governments to revise regulations and address any potential new risks from these technologies.
- Changing communication platforms (e.g., social media) have increased the speed and amount of information sharing between governments, stakeholders and the public. Therefore, efficient, clear and transparent communication and sharing of information is essential in order to maintain the public trust of Canadians.

Given these continually evolving challenges, emergency events could have significant impacts that go well beyond economic concerns (e.g., loss of public trust, and impacts to the environment and human health). Therefore, there is a need to take prioritized action on risks and increase efforts earlier in the EM continuum (i.e. prevention and mitigation), as well as to improve the collective ability of all partners to respond to and recover from events. This will shift the current reactive system to a comprehensive approach that manages risks proactively and maximizes the use of collective capacities.

An understanding of the risk environment is critical in order to take prioritized action on risks. It is important to recognize that zero-risk scenarios do not exist and there is the need to focus not only on the largest risks, but also on those actions that give the biggest return on investment.

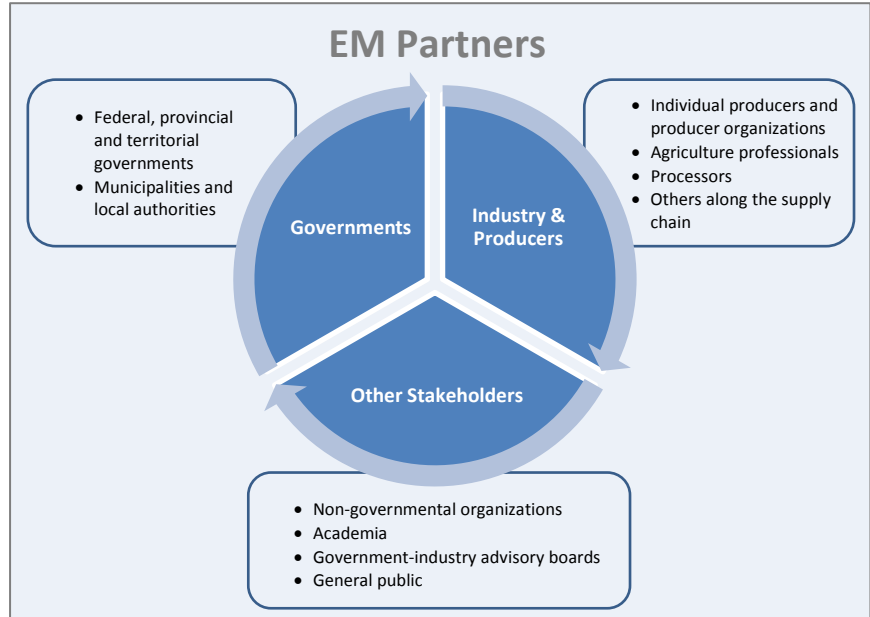
The risk analysis conducted to support development of the Framework identified the following four key areas that were considered likely to result in significant emergencies, due to a high probability of occurrence and potentially high impacts on the agriculture sector:

- Meteorological events and extreme weather (extreme heat, cold, precipitation, drought, hail and wind) are projected to become more frequent, variable and intense, with a significant effect on agricultural production that is heavily dependent on predictable and stable weather and climate patterns.
- The risk of plant pests and animal diseases has increased due to growing volumes of trade, diversification of imports, climate change, globalization, market changes, and modern farming practices. Both plant pests and animal diseases can have significant impacts on Canada's economy (in large part due to our dependence on export markets), environment, and human health and safety.
- Given the integrated nature of the Canadian agriculture and agri-food system, a disruption to critical infrastructure—including critical control points within the sector (for example, slaughter facilities) or to key linkages such as transportation, water or energy infrastructure—can negatively impact areas such as farm profits, crop yields and quality, market competitiveness or market share. Contamination events of key inputs to the agriculture sector (i.e., water, seed, fertilizer, livestock feed) and agricultural products, either by accident or the intentional introduction of contaminants (e.g., on-farm tampering), can occur at various points in the agriculture and agri-food continuum, and can have significant impacts on human and animal health, the environment and the economy (including market access).

It is with these key risks in mind that the vision and desired outcomes of the Framework were developed.

1.3 Shared Responsibility

Emergency management (EM) within the agriculture sector is a shared responsibility among FPT and municipal governments, industry, producers and other stakeholders³, which, for the purposes of this Framework, comprise the definition of *partners*. This shared responsibility emphasizes the importance of collaboration, while recognizing that all individual partners play a critical role.



The initial response to emergency situations may begin with actions being taken by the individuals directly affected by an emergency, as they are usually the first to be exposed to the potential hazards. Depending on the nature of the situation and/or respective mandates involved, the response may be led by municipal, provincial and/or federal levels of government. There are also instances where governments use their legislative authorities to control or restrict activities that could result in an emergency (e.g., an import prohibition). However, effective EM actions involve much more than response, and include shared responsibilities of all partners across the four pillars.

³ Refer to Annex 2 for an illustrative list of the types of roles that various EM partners currently play

2.0 PURPOSE AND SCOPE OF THE FRAMEWORK

The Framework sets the strategic direction for partners to collaboratively prepare for and manage emergencies facing the agriculture sector in a predictable, cohesive, practical and forward-thinking manner. In many cases, effective EM systems and practices are already in place in Canada's agriculture sector, but they may not be well integrated. The Framework guides the development and eventual implementation of EM activities to better use collective capacities and expertise in order to fully realize the desired outcomes.

The Framework focuses on emergencies impacting, or with the potential to impact, Canadian agriculture, agricultural products, primary inputs (including fertilizers, seeds and feed), animals (including veterinary biologics, and animal welfare) and plants. Depending on respective mandates, some of the authorities and responsibilities of the various FPT governments extend beyond the common understanding of agriculture, to include forestry and aquatics. Consequently, the Framework covers all types of risks to the agriculture sector, as well as to aquatics and forestry, as applicable. These risks include severe or extreme meteorological and climatological events, animal diseases, plant pests, contamination events and tampering at the farm level.

While the Framework does not cover food safety EM, it complements established FPT government roles and responsibilities and other robust processes that are already established in this area. The Framework acknowledges the importance of food safety throughout the agriculture EM continuum, and the potential impacts to human health and the agri-food sector if food safety and/or quality are compromised.

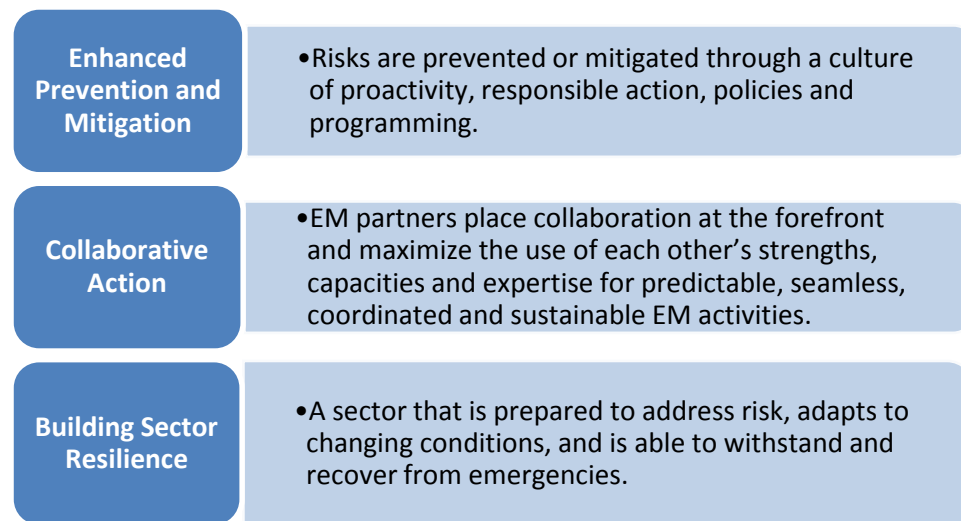
3.0 VISION

Although the Framework informs EM activities across the four pillars it also directs all partners to place greater emphasis on prevention and mitigation. Given the potential for significant impacts, particularly to Canada’s economy and environment, enhanced attention on preventing and mitigating emergencies will contribute to a more sustainable agriculture sector. The challenges facing this sector have resulted in partners collectively supporting the following common vision for EM:

Integrated and collaborative emergency management focused on prevention and mitigation and improving our ability to prepare, respond and recover – thereby promoting the resilience, sustainability and competitiveness of the agriculture sector.

While the vision places increased emphasis on prevention and mitigation, it also recognizes that not all risks can be prevented. In some cases, where the cost to prevent an emergency may be prohibitive, a risk management decision could instead be made to respond and recover. This reflects the basic approach for any policy decision in that its benefits must outweigh or be equal to its costs. In such cases, planning and preparedness efforts that have been undertaken will enhance sector resilience.

Central to achieving the vision are the following outcomes:



The vision and outcomes cannot be achieved without guiding principles (as noted below) that set expectations for engagement in all EM activities. All EM partners have a key role in building and maintaining a sector that is sustainable, competitive and resilient to emergencies. For an overview of Framework elements, including vision, outcomes and guiding principles, see Annex 3.

4.0 GUIDING PRINCIPLES

The Framework's guiding principles are applicable across all four EM pillars. They shape collective and collaborative EM actions for the benefit of Canada's agriculture sector, with the understanding that collective, sustained commitment is necessary to effectively prevent and mitigate, prepare for, respond to and recover from emergencies. Accordingly, partners acknowledge and commit to the following guiding principles:

- A **risk-based approach** across the four EM pillars that prioritizes efforts and resources on those risks with the greatest impact and probability, with an emphasis on risks that could result in significant economic, social or health consequences, while recognizing that proactive actions prevent risks from manifesting, particularly in those areas that are controllable.
- A **comprehensive approach** to the prevention and mitigation, preparedness, response, and recovery pillars of EM that recognizes the value of balanced efforts to address hazards in agriculture, including those that are natural, biological or economic.
- Respect **authorities and roles and responsibilities** to achieve common goals across all EM activities given the shared responsibility between FPT governments, municipalities, industry and other stakeholders. This emphasizes the optimal use and collaborative leveraging of authorities, expertise and capacity.
- Effective **collaboration** to facilitate integrated and coherent action by all partners, including industry and other stakeholders.
- Clear and coordinated **communications** in a timely manner through sustained effort prior to and during a crisis, and follow-through after an event. This recognizes the critical importance of information sharing among all implicated partners, including the industry sector and the public.
- Build government and sector resilience through a process of **continuous improvement** that, as a consequence, improves the capacity of FPT governments and the sector to address adverse events as well as adapt to other long-term trends.
- Enhance **public trust** and maintain social license regarding EM activities and, more broadly, for the agriculture sector through applying shared values, transparency, stewardship and responsible behaviour in decision-making.

5.0 DESIRED OUTCOMES

The desired outcomes of enhanced prevention and mitigation, collaborative action, and building sector resilience provide ongoing and high-level guidance on the work to implement the Framework. To begin this work, a number of short-term activities have been identified and are listed in Annex 4, while the broader suite of activities necessary to achieving these outcomes will be determined collaboratively with all partners, as further discussed in section 6.0.

5.1 Enhanced Prevention and Mitigation

Enhanced prevention and mitigation are key to positioning Canada to address emerging threats and provide the greatest return on investment in terms of the efficiency and effectiveness of resources in managing emergencies. In the context of plant pest and animal disease, studies estimate that approximately one hundred dollars is saved for every dollar invested early in the EM continuum⁴. Although prevention may never be certain, in some situations actions can be taken to reduce the probability of an event. In addition, the longer that risks can be prevented from occurring, the more potential preparedness, response and mitigation measures can be developed. Mitigation measures can also be established to minimize the impact of an emergency event when it does occur.

Desired Outcome:

Risks are prevented or mitigated through a culture of proactivity, responsible action, policies and programming.

For this desired outcome, partners have common and collaborative approaches to risk foresight, assessment and prioritization. There are cross-jurisdictional surveillance and monitoring networks in place that allow for the sharing of diagnostic capacity and the early detection of threats. Import controls address risks off-shore and at the border, and domestic risks are addressed through the widespread adoption/application of biosecurity measures. These programs and approaches are delivered as part of a broader strategy that uses existing risk management practices, while coordinating an integrated approach, among all partners, to the prevention and mitigation of risks to plant and animal resources. Animal welfare is a key consideration in all relevant activities. The public is aware of their role in risk prevention and mitigation leading to responsible action. All of these efforts are supported by scientific research on effective prevention and mitigation measures.

A Renewed Focus – Canada’s Approach to Addressing Plant and Animal Health Risks

The development of a plant and animal health strategy will enhance and complement the many sound government and stakeholder risk management programs currently in place to mitigate and respond to various plant and animal health risks. The strategy, developed in partnership with stakeholders, will focus on:

- The need for an integrated, proactive risk management approach to address plant and animal health risks;
- The establishment of a shared vision which includes an increased focus on the prevention of plant and animal health risks;
- Harnessing collective strengths and partnerships; and
- Positioning Canada to meet current and emerging pressures.

⁴ Scott, AE et al. 2012. National animal health surveillance: Return on investment. Preventive Veterinary Medicine 105, 265-270

5.2 Collaborative Action

Collaborative action recognizes the shared responsibility for EM within the agriculture sector, and helps partners more efficiently and effectively prevent, prepare for, respond to and recover from an emergency. Effective and coherent EM actions are not possible without collaboration that draws on the strengths, capacities and collective resources of all partners, as well as clear and coordinated communications. The key roles played by all partners and their contribution to EM within the agriculture sector are recognized in this regard (e.g., numerous existing initiatives showcase the capacity and expertise of industry associations to create sector-specific preventative programs that complement and support government action).

Desired Outcome:

EM partners place collaboration at the forefront and maximize each other's strengths, capacities and expertise for predictable, seamless, coordinated and sustainable EM activities.

For this desired outcome, planning and program development is done collectively. Roles and responsibilities of all partners are defined and respected. Appropriate governance is in place to effectively manage shared responsibilities, with transparent and collaborative decision-making that is supported by comprehensive scientific and technical evidence. There are clear channels for communication and information sharing (data, statistics and intelligence) that use a common language. Partners support each other through shared expertise and operational capacity, and clear mechanisms for leveraging this support are in place prior to an emergency event. Partner efforts and initiatives are recognized and shared, allowing them to be further improved.

The 2014 avian influenza outbreak in British Columbia demonstrates that collaborative action can improve emergency outcomes

	<u>2004</u>	<u>2014</u>
Premises Infected	53	13
Birds Depopulated	16.2 million	240,000

Success Factors:

- Early detection and surge capacity improved through integrated surveillance and a disease response plan that was developed and exercised.
- Government collaboration with industry associations improved government response efforts by enabling direct communication with their membership.
- Enhanced biosecurity implemented at farm level.

5.3 Building Sector Resilience

With the increasing challenges and number of emergencies facing the sector, improving its overall resilience is critical to long-term sustainability and competitiveness. Not all risks, such as droughts or other natural disasters, are avoidable, and even with rigorous preventative controls some emergency events will occur. It is important that all EM partners work continually to enhance preparedness and improve sector resilience in order to minimize the impact of emergencies when they happen. These measures will support Canada's ability to respond, adapt and recover quickly from the impacts of agricultural emergencies. To achieve this goal, ongoing dialogue between all partners is needed in order to build capacity and support the development of tools, capabilities and implementation of best practices.

Desired Outcome:

A sector that is prepared to address risk, adapts to changing conditions, and is able to withstand and recover from emergencies.

For this desired outcome, preparedness builds resilience. This is achieved through the creation and adoption of plans accompanied by ongoing local/regional/national exercises and risk assessments. Resilience is supported through the development of tools (e.g., business risk management) and technologies (e.g., mapping), and the establishment of supportive programs (e.g., traceability) for response and recovery. There is regular assessment, reporting and review of lessons learned to facilitate continuous improvement. Models that work well are expanded and shared for others to build upon (e.g., Livestock Market Interruption Strategy). Partners draw on scientific research and innovation to enhance sector resilience and adapt to changing conditions, including climate change, adjusting EM activities as needed.

**The Livestock Market Interruption Strategy (LMIS)
– Enhancing Preparedness in the Livestock Sector**

The LMIS is a national, FPT government and industry strategy, developed over a three-year period, to enhance preparedness to manage any large-scale livestock market interruption. Focused on the impact to healthy animals, the strategy includes tools and information in the areas of roles, responsibilities and governance; industry transition and decision support; markets; and communications. With the strategy in place, governments and industry will have:

- The basis to take coherent and national action to mitigate the impacts, including through targeted programs
- Collaborative and consistent messaging established in advance
- The ability for quicker decision-making based on a governance structure, a strong foundation for working relationships and better understanding of the risks to the sector
- The tools and information to better balance supply with demand

6.0 DELIVERING RESULTS

Successful implementation of the Framework will result in greater coherence in managing risks and emergencies, improved competitiveness of the sector, and increased confidence in Canada's agriculture system. To this end, FPT governments will undertake implementation efforts with stakeholders to ensure a more integrated and cohesive approach to agriculture EM in Canada.

6.1 Implementation

Through the implementation activities, the desired outcomes will be realized for the benefit of all Canadians, including, but not limited to, Canada's agriculture sector, economy and the environment. Implementation activities require support from all partners, will align resources with priorities and will be accompanied by planned timelines, goals and deliverables.

The implementation plan included in Annex 4 outlines short-term deliverables and is intended to be reviewed and assessed biennially by partners, with achievements reported to FPT Ministers of Agriculture. Recognizing that partners cannot deliver all potential activities envisioned as part of the Framework simultaneously, agreement will be sought on activities to be carried out within medium- and longer-term timeframes, particularly those that will require additional investments of resources to successfully complete.

6.2 Measuring Success

Implementation will be results-focused and will clearly demonstrate progress for the sector and Canadians through regular reporting. A performance measurement strategy with associated performance indicators will be developed to facilitate continuous improvement, informed decision-making and timely action with respect to implementation efforts. This will also enable partners to monitor and report on the achievement of results across the short, medium and long term.

ANNEX 1: Glossary of Definitions⁵

All-Hazards

Emergency management adopts an all-hazards approach in every jurisdiction in Canada by addressing vulnerabilities exposed by both natural and human-induced hazards and disasters. The all-hazards approach increases efficiency by recognizing and integrating common emergency management elements across all hazard types, and then supplementing these common elements with hazard specific sub-components to fill gaps only as required. As such, “All-Hazards” does not literally mean preparing to address any and all potential hazards in existence. Rather, it emphasizes the leveraging of synergies common across hazards and maintaining a streamlined and robust emergency management system. The “All-Hazards” approach also improves the ability of emergency management activities to address unknown hazards or risks.

Biosecurity

A set of practices used to minimize the transmission of pests, diseases and contaminants including their introduction (bioexclusion), spread within populations (biomanagement), and release (biocontainment)⁶.

Disaster

Essentially a social phenomenon that results when a hazard intersects with a vulnerable community in a way that exceeds or overwhelms the community’s ability to cope and may cause serious harm to the safety, health, welfare, property or environment of people; may be triggered by a naturally occurring phenomenon which has its origins within the geophysical or biological environment or by human action or error, whether malicious or unintentional, including technological failures, accidents and terrorist acts.

Emergency

A present or imminent event that requires prompt coordination of actions concerning persons or property to protect the health, safety or welfare of people, or to limit damage to property or the environment.

Emergency Management

The management of emergencies concerning all-hazards, including all activities and risk management measures related to prevention and mitigation, preparedness, response and recovery.

Hazard

A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.

Prevention

Actions taken to avoid the occurrence of negative consequences associated with a given threat; prevention activities may be included as part of mitigation.

⁵ All definitions from “An Emergency Management Framework for Canada (Second Edition)” unless otherwise referenced <http://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/mrgnc-mngmnt-frmwrk/index-eng.aspx>

⁶ Canadian Food Inspection Agency. 2015. Integrated Agency Inspection Model - Final Version February 11, 2015 Retrieved from: <http://inspection.gc.ca/about-the-cfia/accountability/inspection-modernization/integrated-agency-inspection-model/eng/1439998189223/1439998242489#saf>

Prevention/Mitigation

Actions taken to eliminate or reduce the impact 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.

Resilience

Resilience is the capacity of a system, community or society exposed to hazards to adapt to disturbances resulting from hazards by persevering, recuperating or changing to reach and maintain an acceptable level of functioning. Resilient capacity is built through a process of empowering citizens, responders, organizations, communities, governments, systems and society to share the responsibility to keep hazards from becoming disasters.

Risk

The combination of the likelihood and the consequence of a specified hazard being realized; refers to the vulnerability, proximity or exposure to hazards, which affects the likelihood of adverse impact.

Risk-based

The concept that sound emergency management decision-making will be based on an understanding and evaluation of hazards, risks and vulnerabilities.

Risk Management

The use of policies, practices and resources to analyze, assess and control risks to health, safety, environment and the economy.

Sustainable

A sustainable approach is one that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Threat

The presence of a hazard and an exposure pathway; threats may be natural or human-induced, either accidental or intentional.

Traceability

The ability to access any or all information relating to that which is under consideration, throughout its entire life cycle, by means of recorded identifications⁷.

Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. It is a measure of how well prepared and equipped a community is to minimize the impact of or cope with hazards.

⁷ Olsen P., Borit M. 2013. How to define traceability. Trends in Food Science and Technology. 29(2): 142-150.

ANNEX 2: Roles and Responsibilities for Agriculture Emergency Management

The table below outlines the current roles and responsibilities for emergency management (EM) in agriculture, which are intended to be the basis of collaboration as partners work together to improve EM in Canada. This is not an exhaustive list, but an illustration of the type of roles that various EM partners play and where overlaps exist. It is intended to show that all partners have roles and responsibilities for agriculture EM that extend along the EM continuum, while highlighting that these roles and responsibilities are interrelated and complementary.

Partner	Type of activity	Roles and responsibilities
Industry and Producers		
Production level stakeholders (Individual producers, veterinarians, agronomists, brokers, transporters, processors, others along the supply chain)	<i>Prevention and mitigation</i>	<ul style="list-style-type: none"> - Adopt and implement known best management practices (BMPs)* and biosecurity plans and measures - Focus on addressing risk on-farms - Establish and maintain risk management plans
	<i>Preparedness</i>	<ul style="list-style-type: none"> - Ensure comprehensive response and business continuity plans are in place - Participate in existing business risk management programs and invest in private insurance - Exercise the plans
	<i>Response</i>	<ul style="list-style-type: none"> - Report event(s) - Communicate change in pest or disease status - Implement /assist in the implementation of response measures - Support investigations
	<i>Recovery</i>	<ul style="list-style-type: none"> - Review and update response plans, farm operating and physical structure, biosecurity measures and BMPs to determine if gaps existed - Draw upon financial tools to support recovery and reinvestment, as appropriate
Producer organizations	<i>Prevention and mitigation</i>	<ul style="list-style-type: none"> - Communicate importance of best management practices (BMPs), biosecurity plans and measures with membership - Provide advice and strategic direction on best practices - Communicate tools and services that can assist with emergency management (e.g., programs) - Enhance public awareness through communications campaigns - Create and adopt sector-specific preventative programs that complement and support government action during an emergency response
	<i>Preparedness</i>	<ul style="list-style-type: none"> - Provide support for the creation of comprehensive plans - Ensure comprehensive response and communication plans are developed and available - Develop and provide exercise simulations and training opportunities for membership - Encourage uptake of tools such as business risk management and private insurance - Provide periodic foresighting opportunities to anticipate future risks
	<i>Response</i>	<ul style="list-style-type: none"> - Communicate status of actions or investigations with membership - Provide assistance to membership for financial and stress management - Provide guidance to membership on “next steps”

Partner	Type of activity	Roles and responsibilities
	<i>Recovery</i>	<ul style="list-style-type: none"> - Communicate how to access support with membership - Evaluate the sector and consider any necessary adjustments or lessons-learned to improve response and communication plans for future events - Work with governments to take action and make critical decisions to help industry recover
Governments		
Provincial and territorial governments	<i>Prevention and mitigation</i>	<ul style="list-style-type: none"> - Create and oversee activities that serve to prevent and mitigate the impacts of events (e.g., spread of plant pests and animal diseases) within their province/territory - Lead on risks not actionable at the federal level - Promote public risk communication
	<i>Preparedness</i>	<ul style="list-style-type: none"> - Support producers, industry associations and federal government in the preparation of response plans - Promote and encourage sound business management, including the use of tools such as business risk management and private insurance - Develop business continuity plans for government - Ensure comprehensive response and communication plans are in place - Develop inventories of equipment and supplies needed for response - Develop and provide exercise simulations and training opportunities - Develop legislation, regulation and policies that outline responses to emergency management and specific risks - Provide periodic foresighting opportunities to anticipate future risks
	<i>Response</i>	<ul style="list-style-type: none"> - Lead, support, oversee and coordinate, as appropriate, the aspects of emergency response within their jurisdiction (e.g., extreme weather and other non-plant and animal emergencies) - Support federal response (e.g., provincial veterinarians and production specialists assist in investigations during disease outbreaks and plant pest incursions, agricultural production experts assist in assessing extreme weather impacts, etc.)
	<i>Recovery</i>	<ul style="list-style-type: none"> - Provide assistance with recovery
Municipalities and local authorities		<ul style="list-style-type: none"> - Roles and responsibilities differ amongst municipalities and vary greatly between provinces, but some key elements include: <ul style="list-style-type: none"> ▪ Engage with local first responders ▪ Assure preparedness plans are in place according to provincial/territorial legislation requirements ▪ Liaise with provinces
Federal government (led by the Canadian Food Inspection Agency and Agriculture and Agri-Food Canada) [†]	<i>Prevention and mitigation</i>	<ul style="list-style-type: none"> - Create and oversee activities that serve to prevent and mitigate the impacts of events (e.g., the entry of plant pests and animal diseases into Canada as well as through interprovincial trade) - Provide scientific advice and foster enabling environment for the creation of best management practices and biosecurity plans and measures - Contribute to research and development that can provide large-scale benefits in reducing the potential for, and impacts of, emergencies - Raise awareness and engage partners in an understanding of risks and the need for prevention

Partner	Type of activity	Roles and responsibilities
	<i>Preparedness</i>	<ul style="list-style-type: none"> - Assist industry in the creation of comprehensive response plans - Ensure appropriate structures are in place within the federal government to allow for timely and coordinated response - Develop tools and services to assist with the impacts of emergency events - Promote and encourage sound business management, including the use of tools such as business risk management and private insurance - Develop business continuity plans for government - Ensure comprehensive response and communication plans are in place - Develop inventories of equipment and supplies needed for response - Develop and provide exercise simulations and training opportunities - Provide periodic foresighting opportunities to anticipate future risks - Develop legislation, regulation and policies that outline responses for emergency management, and specific risks
	<i>Response</i>	<ul style="list-style-type: none"> - Lead response where appropriate (e.g., to specific diseases and pests, national/regional events, etc.) - Support response (e.g., localized extreme weather) - Address market access and economic impacts to the sector
	<i>Recovery</i>	<ul style="list-style-type: none"> - Provide assistance with recovery
Other Stakeholders		
Non-governmental Organizations, academia, government-industry advisory boards	<i>Prevention and mitigation</i>	<ul style="list-style-type: none"> - Provide advice and strategic direction on best practices - Foster communication between all stakeholders - Contribute to research and validation of systems/approaches (e.g., biosecurity measures) - Educate all partners through communications campaigns to increase awareness
	<i>Preparedness</i>	<ul style="list-style-type: none"> - Make recommendations regarding contingency procedures and response plans - Contribute to research and knowledge base associated with emergencies and emergency management
	<i>Response</i>	<ul style="list-style-type: none"> - Advise governments and industry on technical/scientific aspects of agriculture emergency management response
	<i>Recovery</i>	<ul style="list-style-type: none"> - Study and evaluate effectiveness of contingency procedures and response plans

* It is noted that BMPs and biosecurity plans are often comprehensive all-hazards approaches.

† It is recognized that supporting federal government departments and agencies, such as Health Canada (including the Pest Management Regulatory Agency), Canada Border Services Agency, Public Safety Canada, Parks Canada, Fisheries and Oceans Canada, Natural Resources Canada, Environment and Climate Change Canada, and Global Affairs Canada are important partners who contribute to EM outcomes. There is commitment within the federal government to effectively coordinate and collaborate to make sure that linkages are made, where appropriate.

ANNEX 3: Overview of the Framework

VISION	Integrated and collaborative emergency management focused on prevention and mitigation and improving our ability to prepare, respond and recover – thereby promoting the resilience, sustainability and competitiveness of the agriculture sector		
GUIDING PRINCIPLES	Respect authorities, roles and responsibilities; Effective collaboration; Clear and coordinated communications; A risk-based approach; A comprehensive approach; Continuous improvement; Enhance public trust		
DESIRED OUTCOMES	<p>Enhanced Prevention and Mitigation</p> <p>Risks are prevented or mitigated through a culture of proactivity, responsible action, policies and programming</p>	<p>Collaborative Action</p> <p>EM partners place collaboration at the forefront and maximize the use of each other’s strengths, capacities and expertise for predictable, seamless, coordinated and sustainable EM activities</p>	<p>Building Sector Resilience</p> <p>A sector that is prepared to address risk, adapts to changing conditions, and is able to withstand and recover from emergencies</p>
IMPLEMENTATION: SHORT-TERM ACTIVITIES	<ol style="list-style-type: none"> 1. Organize and conduct emergency management exercises 2. Strengthen information sharing 3. Clarify EM roles and responsibilities 4. Jointly develop a plant and animal health strategy 5. Raise awareness of responsible action for prevention 6. Encourage widespread adoption and consistent application of prevention and biosecurity measures: Biosecurity “what’s next” 7. Federal leadership in trade advocacy 8. Implement LMIS 2.0 9. Develop common and collaborative approaches to risk foresight, assessment and prioritization 10. Review of Framework implementation 		
STRATEGIC RESULTS	Greater coherence in managing risks and emergencies; Improved competitiveness of the sector; Confidence in Canada’s agriculture system		

ANNEX 4: Implementation – Short Term

Associated Framework Outcome	Activities and Potential Deliverables	Potential Delivery Partners (*Lead)
<ul style="list-style-type: none"> Enhanced prevention and mitigation Collaborative action Building sector resilience 	<p>Organize and Conduct Emergency Management (EM) Exercises</p> <ul style="list-style-type: none"> EM partner working group to facilitate delivery of joint exercises, including collective prioritization of risk areas for exercise development (e.g., plant pests, animal diseases, contaminants, weather) Schedule regular EM exercises (table top and live plays) spanning all areas of agricultural risk, including flood, drought, contamination, infrastructure disruptions, plant pest and animal disease introductions Exercises as per schedule “Hot-wash” of exercise results that identify gaps and areas for improvement, including those that exist for the chain of communication 	<ul style="list-style-type: none"> Government* Industry* & Producers Other Stakeholders
	<p>Strengthen Information Sharing</p> <ul style="list-style-type: none"> Inventory and assessment of existing agreements that support information sharing (formal and informal) Explore creation of information sharing and communication networks, including the creation of a Plant Health Network Information sharing on best management practices for handling agriculture emergencies (e.g., via workshops, resource materials, webinars, etc.) 	<ul style="list-style-type: none"> Government* Industry & Producers Other Stakeholders
	<p>Clarify EM Roles and Responsibilities</p> <ul style="list-style-type: none"> Inventory and assessment of EM partner capacities, facilities, and existing authorities Analysis of existing decision-making tools with recommendations for further elaboration and development to support rapid and effective decision-making in specific emergency situations 	<ul style="list-style-type: none"> Government* Industry & Producers*
	<p>Jointly develop a plant and animal health strategy</p> <ul style="list-style-type: none"> An integrated approach to the prevention and mitigation of risks to plant and animal resources Joint (e.g., FPT, industry, other stakeholders) implementation plans and associated activities which leverage work already underway in some areas and identify other areas to pursue 	<ul style="list-style-type: none"> Government* Industry & Producers Other Stakeholders
<ul style="list-style-type: none"> Enhanced prevention and mitigation 	<p>Raise Awareness of Responsible Action for Prevention</p> <ul style="list-style-type: none"> Social media messages Joint EM partner presentations/messages 	<ul style="list-style-type: none"> Government* Industry* & Producers Other Stakeholders

Associated Framework Outcome	Activities and Potential Deliverables	Potential Delivery Partners (*Lead)
	<p>Encourage widespread adoption and consistent application of prevention and biosecurity measures: Biosecurity “what’s next”</p> <ul style="list-style-type: none"> • Examination of how we can capitalize on the potential benefits of prevention and mitigation that might result from this work • Engage with stakeholders to determine the role of governments (provincial, federal and territorial) and industry • Develop plans to collectively encourage/ensure uptake and implementation 	<ul style="list-style-type: none"> • Government* • Industry* & Producers • Other Stakeholders
<ul style="list-style-type: none"> • Collaborative action • Building sector resilience 	<p>Federal leadership in trade advocacy</p> <ul style="list-style-type: none"> • Trading partners identified where advocacy would have the biggest impact • Engage key partners in peacetime on areas such as zoning and mutual recognition of system to mitigate financial impacts when emergencies do occur 	<ul style="list-style-type: none"> • Federal Government*
<ul style="list-style-type: none"> • Building sector resilience 	<p>Implement LMIS 2.0</p> <ul style="list-style-type: none"> • Adopt the Livestock Market Interruption Strategy (LMIS) and evaluate tools and material through an exercise program • Promote LMIS to the sector to increase preparedness • Continue the analysis and the development of detailed plans, guides and capacity development and address gaps in support of the broader strategy • Understanding of the scope of investment and resources required to enhance industry preparedness for emergency events and consider investment through means, including existing and future agricultural policy frameworks 	<ul style="list-style-type: none"> • Government* • Industry* & Producers
<ul style="list-style-type: none"> • Enhanced prevention and mitigation 	<p>Develop common and collaborative approaches to risk foresight, assessment and prioritization</p> <ul style="list-style-type: none"> • Validated tool developed for risk-based assessment and prioritization among FPT governments • Develop and implement common process for the assessment and prioritization of risks to the sector 	<ul style="list-style-type: none"> • Government*
<ul style="list-style-type: none"> • Enhanced prevention and mitigation • Collaborative action • Building sector resilience 	<p>Review of Framework Implementation</p> <ul style="list-style-type: none"> • Biennial progress report 	<ul style="list-style-type: none"> • Government* • Industry & Producers • Other Stakeholders