

OFFICIAL FEEDBACK FORM

DIALOGUE DATE	Thursday, 27 May 2021 13:00 GMT -04:00
DIALOGUE TITLE	Climate Adaptation and Food Security / Adaptation aux changements climatiques et sécurité alimentaire
CONVENED BY	Natasha Kim, Assistant Deputy Minister, Strategic Policy Branch / Sous-ministre adjointe, Direction générale des politiques stratégiques, Agriculture and Agri-Food Canada / Agriculture et agroalimentaire Canada
DIALOGUE EVENT PAGE	https://summitdialogues.org/dialogue/14365/
DIALOGUE TYPE	Member State
GEOGRAPHICAL FOCUS	Canada

The outcomes from a Food Systems Summit Dialogue will be of use in developing the pathway to sustainable food systems within the locality in which they take place. They will be a valuable contribution to the national pathways and also of interest to the different workstreams preparing for the Summit: the Action Tracks, Scientific Groups and Champions as well as for other Dialogues.

1. PARTICIPATION

TOTAL NUMBER OF PARTICIPANTS

51

PARTICIPATION BY AGE RANGE

0-18

9

19-30

21

31-50

15

51-65

1

66-80

80+

PARTICIPATION BY GENDER

16 Male

28 Female

7 Prefer not to say or Other

NUMBER OF PARTICIPANTS IN EACH SECTOR

6 Agriculture/crops

Fish and aquaculture

3 Livestock

2 Agro-forestry

7 Environment and ecology

Trade and commerce

4 Education

1 Communication

Food processing

Food retail, markets

5 Food industry

Financial Services

1 Health care

Nutrition

4 National or local government

Utilities

Industrial

19 Other

NUMBER OF PARTICIPANTS FROM EACH STAKEHOLDER GROUP

6 Small/medium enterprise/artisan

Large national business

1 Multi-national corporation

1 Small-scale farmer

2 Medium-scale farmer

1 Large-scale farmer

8 Local Non-Governmental Organization

4 International Non-Governmental Organization

3 Indigenous People

3 Science and academia

1 Workers and trade union

Member of Parliament

2 Local authority

4 Government and national institution

Regional economic community

United Nations

International financial institution

3 Private Foundation / Partnership / Alliance

Consumer group

12 Other

2. PRINCIPLES OF ENGAGEMENT

HOW DID YOU ORGANIZE THE DIALOGUE SO THAT THE PRINCIPLES WERE INCORPORATED, REINFORCED AND ENHANCED?

Preparation for this member-state Dialogue involved broad consultation across multiple federal government departments and leveraged results of on-going engagement with other stakeholders on issues of sustainability to help inform all stages of planning, from conceptualization through to implementation and event management. This encouraged the identification of diverse perspectives across the food system relevant to the topic and inclusion of diverse stakeholders in the invitation list for the Dialogue.

HOW DID YOUR DIALOGUE REFLECT SPECIFIC ASPECTS OF THE PRINCIPLES?

The overall theme of the Dialogue was framed from the perspective of collective and collaborative action to enhance the climate resiliency of Canada's agriculture and food system and explore related food security challenges. Discussion group topics were developed following a review of reports from Canadian organizations, approaches used successfully in other countries, and discussion across federal officials from several departments, to incorporate a broad and collaborative lens. Participants were assigned to discussion groups to ensure a balanced mix of stakeholder groups across the food system. Government of Canada officials acting as facilitators and note-takers were guided to play a neutral role, neither leading the discussion towards select outcomes nor challenging the ideas raised by participants, but instead asking questions to help participants bring forward their own ideas and perspectives and ensuring that all voices are heard. Special attention was paid to the use of Chatham House Rule to ensure that all participants could share perspectives openly and respectfully.

DO YOU HAVE ADVICE FOR OTHER DIALOGUE CONVENORS ABOUT APPRECIATING THE PRINCIPLES OF ENGAGEMENT?

N/A

3. METHOD

The outcomes of a Dialogue are influenced by the method that is used.

DID YOU USE THE SAME METHOD AS RECOMMENDED BY THE CONVENORS REFERENCE MANUAL?

Yes

No

4. DIALOGUE FOCUS & OUTCOMES

MAJOR FOCUS

Recent reports and studies, such as Natural Resource Canada's 'Canada in a Changing Climate' report series indicates that Canada's climate is changing. Temperatures are increasing, precipitation patterns are becoming more variable and the frequency and intensity of some extreme events have increased (e.g. floods, intense rainstorms, wildfires). These changes are anticipated to continue to intensify into the future and will exacerbate current issues facing Canada's agriculture and food system. In Canada, the agriculture and food sector is recognized as being both one of the most climate impacted and one of the most adaptable sectors in Canada.

Climate impacts on Canada's agriculture and food sector are complex and different regions are and will experience climate impacts differently across the country. Climate change can also result in benefits, as well as new threats and challenges to Canada's agriculture and food system. Climate impacts can also reverberate down the entire food system and supply chains, as well as directly impacting communities and rural livelihoods, the foundations of our agriculture system. Adding to the complexity, our agricultural systems need to adapt to a suite of climate change impacts that interact with other factors, such as economic pressures, an increasing global population, changing human dietary preferences, increased input costs and energy prices, competing land-use pressures and policy-related economic pressures.

Food security is a complex issue and there are many factors which affect whether a person is food insecure, such as the availability of food that is healthy, nutritious and culturally appropriate, and the financial and physical access to food. With the world's population projected to increase by two billion people by 2050, Canada has an important role to play in supporting food security at home and abroad. Successfully adapting Canada's agriculture and food system to climate change will make important contributions towards improving food security.

The objective of the dialogue was to bring together diverse stakeholders and perspectives to explore and identify approaches to enhance the climate-resiliency of Canada's agricultural and food sector, including priorities to address food security challenges. Specifically, participants provided feedback on what additional support and actions are required to:

- Enhance the agriculture and food sector's efforts to develop and implement adaptation strategies to ensure Canada's food system is resilient to climate impacts now and into the future.
- Ensure Canada continues to be a world leader in the development, testing and adoption of practices and technologies to improve climate-resiliency and support long term sustainability of the agriculture and food sector.
- Engage with Canada's Indigenous and remote communities to help address food security and production issues, including identifying climate impacts on locally produced traditional food and medicines.

ACTION TRACKS

- Action Track 1: Ensure access to safe and nutritious food for all
- Action Track 2: Shift to sustainable consumption patterns
- Action Track 3: Boost nature-positive production
- Action Track 4: Advance equitable livelihoods
- Action Track 5: Build resilience to vulnerabilities, shocks and stress

KEYWORDS

- Finance
- Innovation
- Human rights
- Women & Youth Empowerment
- Policy
- Data & Evidence
- Governance
- Trade-offs
- Environment and Climate

MAIN FINDINGS

There was broad consensus that many of Canada's past and ongoing agri-environmental and sustainability actions have improved the climate resiliency of our agriculture and food systems. For example, the widespread adoption of Environmental Farm Plans, high adoption of no-till seeding, and development of agriculture adaptation planning, especially in British Columbia, Quebec, and Ontario. At the broader food system level, there was also general consensus that Canada is sustainable and climate resilient due in part to our food and production systems being highly diverse (e.g. not specialized in one commodity, production type, or geographical region). Therefore, there are successes that can be built on and leveraged.

However, gaps and challenges to enhancing adaptation and implementing actions were discussed, as were potential areas for improvement and solutions. Some noteworthy suggestions are further discussed below and included the need to develop transparent, clear objectives and goals through a national strategy focusing on climate adaptation and the sustainability of Canada's food system, with more government leadership. Related to this is the need for dedicated and longer term approaches, programs and technical support for implementation and to accelerate action.

There was agreement that accurate and measurable food system metrics are important, should be developed in a collaborative approach, in order to track progress and inform decision making/strategies. This also included the need to improve coordination and investment in data required to develop and refine metrics on climate resiliency, adaptation and sustainability of Canada's food system.

Other suggestions included increased efforts for education and communication ensuring technical transfer of knowledge from research to farmers, food supply chain stakeholders and consumers in formats that enable understanding of climate impacts and potential solutions. Similarly, participants suggested focusing on increasing capacity for local extension and knowledge transfer activities related to climate-resiliency, especially for small and medium producers, farmers, indigenous and remote communities. This includes increasing dedicated support for research and demonstration on climate resilient production practices and solutions (e.g. agro-ecological approaches, nature based climate solutions, new climate resilient crop varieties, etc.) and identifying their effectiveness, cost, benefits and operational impacts related to their adoption.

It was further suggested to consider restructuring research support programming related to climate resiliency. For example, the current cost-share criteria between public-private funding to initiate research needs to be more flexible with increased government contributions for public good outcomes, such as adaptation solutions.

Discussions also touched on needing to increase support for research, demonstration and programming related to diversifying production systems (e.g. agro-ecological, regenerative and organic production approaches), diversifying and developing varieties of crops better suited to new climate conditions (e.g. winter cereals and different wheat varieties, etc.), and supporting consumer awareness eco-labelling programs.

In terms of engaging on food security, opportunities were noted to go beyond historical tendencies of focusing on commercial agriculture and food and ensuring that smaller-scale and aboriginal farmers have the opportunity to be included in dialogues with commercial operations and access flexible programming support tailored to their needs. Indigenous communities require technical support, but traditional knowledge can also help inform adaptation strategies for other producers. Addressing food security challenges needs to reflect Indigenous food sovereignty, respect the principle of self-determination, and recognize that a number of local and traditional food systems are under threat due to climate changes, while traditional knowledge is also being lost.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 1/4

In discussion groups of up to 12 individuals representing diverse aspects of Canada's food system, participants discussed their perspectives and brainstormed ways to increase the sustainability of production within Canada's food system. Groups discussed three topics: Enhancing efforts to develop and implement adaptation strategies; continuing to be a world leader in the development, testing and adoption of climate resilient and sustainable practices and technologies; and engaging with Canada's Indigenous and remote communities to help address food security and production issues.

Theme 1: Enhancing efforts to develop and implement adaptation strategies

Some groups spent time to outline what is working well today, while other groups focused immediately on the gaps, challenges and barriers, with potential solutions. Ideas generated for what is working well today included:

- One of the key aspects of adaptation, adoption of beneficial (best) management practices, is/has been working well. Examples highlighted include nutrient management, developing environmental farm plans, adopting regenerative practices such as buffer strips, and high adoption rates of no-till seeding, especially across the prairie provinces.
- Some participants noted that the existing Canadian food system is sustainable because it is highly fragmented (not specialized in one food/sector). However, this fragmentation also drives the need for improved communicative platforms where people are able to collaborate and share information.
- In some provincial jurisdictions there has been success in developing regional adaptation plans for the agriculture sector (e.g. British Columbia's Climate Adaptation Initiative which has a strong research network for climate adaptation). Other examples include Quebec's on-farm funding approaches and Ontario's focus in developing a Healthy Soil Strategy.

The discussion on gaps, challenges and barriers included the following ideas and comments:

- Need to invest in emergency preparedness and resilience building with a pan Canadian food system risk tool and/or food system preparedness plan. Requires addressing gaps in information and metrics.
- Metrics could expand from those more traditionally used to include "out of the box" metrics such as the reliability of transportation, energy supply, etc.
- Canada is a diverse nation with different sectors/commodities, production types, and variability between farms within a region. Therefore, there is a greater need to support adaptation with landscape, regional and place-based approaches and prioritize adaptation actions; this is complex and greater capacity and technical assistance is required for building an effective adaptation roadmap.
- Farmers need to know the cost of adopting new practices. It is a major barrier not knowing how a change will impact your farm. The added cost of mitigation needs to be taken into account across the supply chain and down to the farm level. There is more pressure on producers to adopt new practices addressing climate change for both mitigation and adaptation. Greater efforts are needed on knowledge-transfer networks to facilitate farmer-farmer conversations, peer learning and extension support.
- Need greater support to develop more diversification in our food production systems (e.g. regenerative agriculture on smaller scale farms, organic production, circular approaches, crop varieties that are more suited to future climates, etc.).
- Need to develop and test solutions such as improved genetics for plants (e.g. drought/heat tolerance, pest and disease resistance), and approaches that build up and maintain healthy soils.
- Need to educate consumers and supply chain stakeholders on implications of food choices, though it was noted that changing consumer habits/trends can take a long time. Public resistance to improved genetics and genetically modified foods presents a potential barrier to improving climate resilience. Some participants also noted that eating and growing a wider variety of foods and supporting more diverse diets could be beneficial in also supporting the environment and sustainability.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 2/4

[Theme 1 continued...]

- Invest more on educating students, next generation farmers, retailers, public, etc. on integrated food systems and food security at all levels to inform and prepare people (particularly our younger generation) to address adaptation and food security issues.
- There was a suggestion to consider conducting a full agro-ecosystem analysis to better inform and understand what directions we want to go and how to best formulate climate solutions. Food system resilience needs to include fisheries and aquaculture issues and improved integration is required in Canada.
- Profitability (especially for small and medium sized farms) and farm succession planning need greater attention in light of attracting and educating the next generation of Canadian farmers. There is a potential to attract people from both urban and rural settings. Young farmers will play a key role moving forward and there is a need for additional programming to increase access to land and opportunities to support the environment.
- Need greater investment for supporting circular food economy approaches, including education, traditional knowledge and communication.

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OUTCOMES FOR EACH DISCUSSION TOPIC - 3/4

Theme 2: Ensuring Canada continues to be a world leader in the development, testing and adoption of climate resilient and sustainable practices and technologies

- Canada has experienced a loss of government technical assistance and extension services, leaving only the sales and input companies to fill the gap. Extension services need to include field days and demonstration, and opportunities for peer-to-peer learning. Farmers need to feel supported in managing climate, weather and associated environmental risks.
- There is a need for a communication bridge to fill the gap between science/innovation and the actual farmers conducting the work. Communications should be formatted to be more easily understood and accessible.
- Support for climate adaptation research needs to be expanded, especially in the public domain, to be free of perceived bias and readily available to farmers. Existing knowledge from farmers should be leveraged. Consider restructuring research support programming related to climate resiliency and remove potential barriers related to research and innovation that has high public benefits, with unclear or no return on investment for private entities.
- Need increased focus to adapt crops and plants to become more resilient to more extreme weather, and there is a need to improve water use and nitrogen use efficiency, including both equipment/technologies and biological innovation.
- Recognition that farmers have always been innovating, and innovation should start at the grassroots level with farmers and food systems. Innovation should not only be focused on “high-tech” and larger companies, but should focus on what is actually feasible for farmers. There is a need to identify where agro-ecological practices are currently taking place and how these current practices can be better supported and improved.
- There is a need to encourage and reward science and innovation for crops. Scientific research in this area should focus on environmentally friendly solutions and sustainability. There is a strong need to focus on science and innovation.
- A shift in culture is required to look at the whole supply chain and not just the traditional focus on primary production – for example, need to expand statistics collected on food systems beyond what is currently done through the Census of Agriculture.
- Governments can assist in the accounting of environmental standards and backing eco-labelling programs. On the producer side, there can be more support for “green” agriculture production and link these to support programs. Consumers could reward the supply chain through environmental leadership that will give incentives on the private sector side.
- Incentive approaches to accelerate and support adoption need to consider and assess the societal impact of technologies – need to think about unintended consequences.
- Need modeling to inform options related to food production and consumption and determine the way climate change is impacting our farming systems, food supply chains and the public.
- The importance of verbal knowledge sharing among the Inuit and Indigenous communities was discussed. Investment in programs and infrastructure to allow for this kind of knowledge sharing is essential for the continuation of sustainable food harvesting and food security.
- Ensuring the generational aspect of knowledge transfer is important in terms of land management and environmental sustainability. Learning from the past is essential and important, history must be captured in order to improve and provide insight to future innovations.
- Increase collaboration and partnerships between ecological/environmental organizations and farmers to share expertise, funding, support communication networks and provide a space for knowledge sharing, collaboration and innovation. This should combine a variety of knowledge types (academic, working, generational, etc.).

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OUTCOMES FOR EACH DISCUSSION TOPIC - 4/4

Theme 3: Engaging with Canada's Indigenous and remote communities to help address food security and production issues

- Need to improve mechanisms and encourage directly engaging with Indigenous communities, improving information sharing and coordination of different players within government agencies and departments related to food and agriculture mandates. We have to recognize that colonial food systems that have been developed have impacted Indigenous communities and be respectful when we address these challenges.
- Addressing food security challenges needs to reflect Indigenous food sovereignty and self-determination. Traditional food systems are under threat due to climate changes, such as rising waters, and traditional knowledge on managing and harvesting these foods are being lost. Indigenous peoples face higher rates of food insecurity.
- In addressing challenges with food security we must also discuss food sovereignty. Research has shown that food insecurity leads to a number of health problems. Communities have been promoting traditional food systems.
- In terms of engaging on food security, there are opportunities to go beyond historical tendencies of focusing on commercial agriculture and food. Ensuring that smaller-scale and Aboriginal farmers have an opportunity to be included in dialogues with commercial operations and are able to access flexible programming support tailored to their needs.
- When addressing food security, looking at Indigenous and remote communities should be viewed as an example of strength and resilience. These communities can also act as leaders and indicators of climate change, and their connections to the land can highlight the impacts of climate change and make them leaders in environmental sustainability and innovation. Their knowledge can be leveraged to support and understand indicators of environmental and climate change.
- Understanding why communities are food insecure is vital, for example, biophysical conditions to grow crops in their environment and other variables that may be impacting the situation such as transportation and trade/export issues acting as a barrier. More information and data is needed to fully understand this issue.
- Collaboration and removing stigmas is essential to addressing food insecurity. Communication is key and sharing resources and an open-source approach would help support this. There also needs to be a willingness to adopt new technologies, where new technologies can offer innovative methods to address food insecurity at a low cost.
- Several gaps exist within government programming in terms of obtaining necessary infrastructure to address food insecurity among Indigenous communities. Making programs more flexible and easier to access would remove this barrier and would better address the problem.
- Food security includes seafood and need to work with Department of Fisheries and Oceans in Canada to improve recognition of Indigenous fishing rights.

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AREAS OF DIVERGENCE

N/A

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ATTACHMENTS AND RELEVANT LINKS

RELEVANT LINKS

- **Canada's Member State Dialogues**
<https://agriculture.canada.ca/en/about-our-department/key-departmental-initiatives/food-policy/leadership-2021-united-nations-food-systems-summit-and-dialogues>
- **Concertations des États membres organisées par le Canada**
<https://agriculture.canada.ca/fr/propos-notre-ministere/initiatives-ministerielles-importantes/politique-alimentaire/leadership-sommet-systemes-alimentaires-nations-unies-2021-concertations>