
Written Submission to the Senate Committee — Study on the Role of the Agriculture and Agri-food Sector in Food Security in Canada

Submitted by:

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Honourable Senators, thank you for the invitation to appear today. We appreciate the opportunity to contribute to your study.

I am the Executive Director of the Smart Prosperity Institute, a national environment-economy research institute at the University of Ottawa. I am also Director of the University's Institute of the Environment and an Associate Professor in the Faculty of Social Sciences. I am joined by my colleague, Michael Twigg, Director of Nature Economies, who has led our nature and agriculture research teams for more than five years.

Our work focuses on how policy and market tools can improve Canada's productivity, competitiveness and resilience by strengthening the natural systems that underpin them. Through our Sustainable Agriculture and Agri-food program, we help identify opportunities to advance the economic and environmental health of our agri-food system. We also make policy suggestions that drive proactive risk management at the farm-level, improve system resilience, and lower long-term costs for producers, governments, and society, alike.

Our submission to this committee aims to establish that food security is an economic and environmental resilience issue, in addition to an urgent social issue rooted in affordability and equitability of access.

We see several worrying trends in the sector, and the numbers are telling. Canada has slipped from fifth to ninth among global food producers. We waste more than half of the food we produce—a third of which is considered avoidable. Our reliance on imported food has grown steadily over the past two decades.

These trends point to two main concerns when we think about how the sector can contribute to greater food security across Canada.

First, our production systems are becoming more unstable.

Across several provinces, we see declines in soil health, imbalances in vital soil nutrients, and rising sensitivity to drought. In 2024, three-quarters of Canadian farmers reported being impacted by severe weather. At the same time, farm income dropped by 26 percent — the largest single drop since 2018.



During this time, crop insurance payments have nearly tripled from \$1.9 billion in 2018 to \$5.7 billion in 2023. While conditions improved in 2025, about 75 percent of farmers still faced abnormally dry conditions. More recent data shows that payments remain well above 2018 levels, with crop insurance payments for the first three quarters of last year alone reaching \$3.3 billion (cet. par. est. \$4.2B).

Infrastructure bottlenecks compound these risks. In 2024, Western Canada, which handles 70 percent of all Canadian grain shipments, saw an increase in transit times of more than 40 days, increasing storage times and port losses. Historically, rail delays cost farmers billions in shipment losses.

Second, our national food system is reliant on raw commodity exports and food imports. This makes it increasingly vulnerable to swift changes in international trade and global market conditions.

\$65 billion of the sector's total value is exposed to global supply-chain disruptions, geopolitical instability, trade conflicts and climate shocks beyond our borders. The United States (50%) and Mexico (~30%) alone represent approximately 80 percent of our food imports. Recent major disruptions have shown how quickly international supply chain risks can materialize and compound the ones we are facing at home.

Our message today following these observations is straightforward: in addition to its socio-economic dimensions, food security in Canada depends on two things.

1. First, food security begins with financially resilient producers. If Canadian farms are not economically stable, Canadian food systems are less secure, and Canada will be forced to increasingly rely on more volatile supply sources.

Building this financial resiliency in turn requires investing in the natural systems that support our food production. We cannot address food security in Canada without recognizing that our food systems fundamentally depend on the health of the natural systems that sustain them. This includes agricultural soils, water, biodiversity and broader climate stability.

2. Second, we need to encourage system-wide efficiency to keep things affordable from farm to table. Avoidable food waste has increased by 6.5 percent in recent years, while food insecurity has risen by more than 5 percent. Racialized communities are most at risk.

If we want a more secure food system, we need policies and markets that support producers in reducing their climate risks and improving the health of their soil. Encouraging proactive risk management efforts, such as building soil health through regenerative agriculture practices, can be dually beneficial – reducing farm level losses and limiting the insurance sector's total liabilities. Business risk management programs are also incredibly important, especially in a climate-exposed sector where risks are set to increase.

In addition, we need to think about how existing policies and programs are encouraging adaptation and lowering systemic risk. This includes ensuring we are aligning public programs and private incentives to increase farm resilience. The benefits of a resilient food system accrue to both public and private actors, and a widespread transition toward more resilient practices will require investments from both parties.



High-impact policies, markets, and programs are those that activate private sector value propositions, enable private sector off-taking, and attract blended finance.

Infrastructure is another key piece of the puzzle, and we need to invest in modernized port and railway infrastructure, as well as the expansion of domestic value-added production capacity, including processing facilities. Building more autonomous food systems and more reliable transportation infrastructure will reduce our exposure to external disruptions, while also seizing higher value export opportunities and creating new jobs in Canada.

Finally, we need to reduce avoidable food waste through circular system design. The loss of food, nutrients and resources at every stage of the supply chain is unsustainable and underpins a dual crisis of affordability and waste. A circular food system would cut waste and make better use of what farms and agri-food producers already have.

A more circular agriculture and agri-food economy includes practical steps to benefit the sector and Canadian consumers alike. This includes measures to cut costs and improve on-farm resiliency, such as encouraging the use of composted manure or crop leftovers to boost soil health while reducing reliance on synthetic fertilizers, as well as measures that improve revenues by getting more out of what we already produce and use, including by improving infrastructure for better storage of harvests and more timely shipments of agricultural products to market.

Food security is not just about producing more. It is about increasing the financial and productive resiliency of Canadian farms while reducing the sector's exposure to unnecessary long-term risks and costs. It is about making production systems and agri-food value chains more reliable and efficient, reducing waste and increasing predictability throughout the food system, and reclaiming our ability to feed Canada and the world for generations to come.

Thank you. I look forward to your questions.