

# **Message from the Chair and CEO**

A year of critical challenges and critical renewal

As our country turns its focus towards economic recovery in a post COVID-19 world, the Canadian Agri-Food Policy Institute (CAPI) seeks to understand the challenges and renewal necessary to contribute to the agriculture and agri-food sector's greater resilience and profitability.

Fiscal year 2019–2020 ended with us facing economic and social upheaval from the pandemic. While most pundits did not contemplate the massive challenges that COVID-19 would bring to the world, to Canada and to the agriculture and agri-food sector, CAPI, as a premiere policy research think-tank dedicated exclusively to Canadian agriculture and agri-food, has always seen the need to go beyond the immediate issues into longer term policy research to make Canadian agriculture and food more resilient and more sustainable. Critical challenges require policies for critical renewal.

This past fiscal year CAPI has been able to contribute in very tangible ways to some of the critical challenges facing agriculture by convening dialogues, synthesizing relevant ideas and completing quality policy research. We released an impressive number of research products and continued to convene expert stakeholders to discuss issues of critical renewal for Canada's

agriculture and agri-food sector to ensure a stronger, more resilient tomorrow.

Despite the turmoil arising from the pandemic, CAPI's Mission, Vision and Values remained unchanged. However, this year did mark a change in how we wanted the impact of our work to be felt across Canada. We are augmenting our mandate in what we do and how we communicate our results from neutral research policy think tank to impartial, solutions-oriented explainer and connector in Canada's agriculture and food policy landscape.

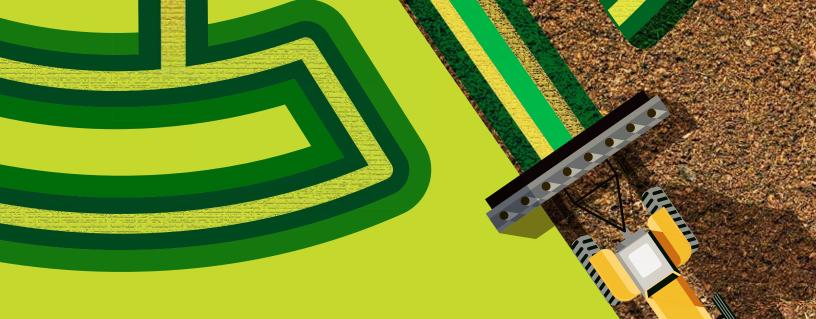
We trust that the work reviewed in the following pages will provide you with a reflection of CAPI's unique contribution to the agricultural policy space in Canada. We invite you to check out the depth and breadth of CAPI activities undertaken this year to engage stakeholders, enhance industry/government dialogue and engage the next generation of agriculture in Canada.

**Chantelle Donahue**Chair of the Board

Ted Bilyea

Interim President and CEO

July 31, 2020



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#### CAPI's Mission

Lead, catalyze and coordinate independent strategic and policy analysis on emerging agri-food issues, engage stakeholders in dialogue, and advance public policy.

#### CAPI's Values

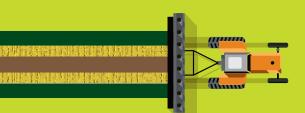
We are independent. We offer a neutral venue. We take a longer-term view. We examine emerging issues. We connect and explain the sound research. We create national dialogues. We express strategic implications. We present policy ideas.



## CAPI's Policy Research 2019–2020

This past year the world witnessed a dramatic shift. From stock market high-flying throughout most of these 12 months, the world descended by early March into panic, fear, economic collapse, social distancing and lockdown as a result of the global pandemic. CAPI was not completely immune from the shocks caused by COVID-19 but, in most respects, was spared from significant deviations in its planned research and operations. As always, CAPI's ongoing mandate is to conduct policy research and analysis on emerging agriculture and agri-food issues that are of critical importance to the future of Canada's agri-food sector.







As part of our renewal, CAPI renewed the focus of our efforts from four identified in past years — Enhancing Natural Capital, Optimizing Growth, Facilitating Trade, and Securing Public Trust — to two pressing, critical, interrelated and generational challenges: Canada in a Multi-Polar Global Context and Mitigation and Adaptation to Climate Change. These two broad challenges framed our FY2019–2020 policy research work and going forward. Now more than ever, these two critical challenges present an opportunity for agriculture to become a truly strategic asset for Canada, while maintaining and enhancing producer and processor livelihoods.

Particularly since the fall of 2019, CAPI's policy research work this fiscal year 2019–2020 has been developed through the lens of these two challenges. CAPI continues to convene strategic and thoughtful dialogues with stakeholders, conceptualize and publish high-quality evidence-based policy research products, and collaborate with partners, particularly this year with the next generation.





#### **Critical Challenge:**

#### Canada in a Multi-Polar Global Context

The postwar rules-based international order is under significant pressure, as old alliances erode, and emergent markets affect the global political and financial order. These changes are already stressing domestic industry-government relationships, and demanding changes in how federal, provincial and territorial governments work together.

CAPI research and dialogue brings a global perspective to bear in building more resilient agriculture and agri-food systems, ready to face trade and other pressures. We will help industry and government deepen their relationship to adapt to global pressure, and we will help drive new ways for federal, provincial, and territorial governments to work together to answer the major challenges that we know are coming.

#### **Critical Challenge:**

# Mitigation and Adaptation to Climate Change

Climate change is already affecting agriculture and agri-food, and agriculture and agri-food have the potential to be a major part of the sustainable future. Evolving expectations around sustainability and commitments to biodiversity are fundamentally altering consumer and government expectations, putting pressure on the sector to respond.

CAPI leadership will help industry, government and consumers understand complex sustainability challenges and make a difference in terms of increasing biodiversity, reducing GHG emissions and improving the quality of our air and water. Policy leadership will support regenerative agriculture, clean growth, and carbon sequestration. Agriculture and agri-food will play a more prominent role across sustainability policy-making, as a strategic asset with enormous economic and environmental potential.





# **Engaging Stakeholders in Dialogue**

#### **Research Approaches**



Report



Dialogue

#### Optimizing Land Use for Sustainable Growth (April 2019)

Following a very successful CAPI Dialogue in Calgary, Alberta in February 2019, the final CAPI Dialogue of the Optimizing Land Use for Sustainable Growth dialogues took place in Guelph in April 2019 with over 150 participants from primary production, processing and other parts of industry, governments, academics and NGOs to discuss how land use can be optimized and environmental outcomes improved while securing the sector's long-term competitiveness and prosperity. The Guelph dialogue hosted a *Next Gen* panel for next generation participants to provide their perspectives on the issues discussed and potential solutions. These two dialogues combined produced over 20 presentations and seven commissioned papers published on CAPI's website. CAPI published a Summary Report of both dialogues to its website in September 2019.

The dialogues helped raise awareness about sustainable land use practices and their impacts on GHG emissions, air and water quality, biodiversity and sector profitability and competitiveness, as well as the options available to optimize land use for sustainable growth. Another integral part of the dialogues was discussing the most effective policy instruments and voluntary and industry initiatives that can be used to promote sustainable production. These dialogues helped improve our understanding of how agricultural land use can be a solutions provider for climate change and have provided the foundation for much of CAPI's work in this fiscal year and beyond.





The following two commissioned pieces were presented by experts at the "Optimizing Land Use for Sustainable Growth" Dialogue in Guelph. These pieces carry many of the important conversations from the dialogue forward to propel new thinking on current agri-food issues in Canada.

## A Framework for Policy Innovation and Reform for Environmental Conflicts in Ontario Agriculture (July 2019)

Agricultural production practices are coming under increased scrutiny, specifically relating to the effects of those practices on various aspects of environmental production. Drawing on examples of environmental conflicts associated with agricultural production in Ontario, author Glenn Fox of the University of Guelph outlines a framework for agricultural-environmental policy that integrates recent contributions to the economic theory of policy.

#### Agricultural Systems, Land Use Practices and Water in Quebec (April 2019)

This paper examines environmental and water quality issues in Quebec caused by agriculture production through the lens of human health, aquatic fauna and the recreational potential of rivers and lakes. Author Bruno Larue of Université Laval discusses past policy interventions and the challenges that lie ahead concerning specific water quality issues, while framing the conversation around the evolution of agriculture in Quebec and the past and current environmental pressures on water quality.





The following two dialogues provide a foundation for CAPI's work beyond fiscal year 2019–2020 on trade as the world navigates the fast-changing global context of COVID-19 and the ripple effects on agricultural trade worldwide. CAPI has worked hard to convene key experts to bring timely dialogues that examine the state of the global food trade system and begun to identify the key ingredients to sustainable and efficient trade amidst dramatic global shifts.

#### Trade and Sustainability of the North American Agriculture and Agri-Food Sector (July 2019)

CAPI jointly hosted a dialogue with the U.S. Farm Foundation entitled "Trade and Sustainability of the North American Agriculture and Agri-Food Sector" in July 2019 in Chicago, Illinois. This dialogue covered the challenges in developing a greater understanding of how trade and sustainability are interconnected. The event brought together experts with diverse backgrounds from academia, industry, government and grower segments of the food and agricultural sector in both the United States and Canada. Discussions focused on the state of global sustainability initiatives, the implications of disruptions in agricultural trade flows and the future of agricultural trade and sustainability. A summary of this discussion was published on CAPI's website in August 2019.

#### Trade in a Chaotic World (November 2019)

CAPI hosted a small conversation with industry entitled "Trade in a Chaotic World" in November 2019 in Toronto. The conversation brought together industry stakeholders and high-level government officials to discuss changes in the Canadian and international agri-food landscape, implications of legacy agriculture policies, and the art of moving forward. The goal of this conversation was to provide insight for CAPI's future trade dialogues, to develop a shared understanding of the current issues, their long-term implications, and possibilities for moving forward beyond the current crisis with a new vision for Canada in global markets and for a renewed/redesigned multilateral system.

# **Groundbreaking New Research**

Canola Disputes in Canada-China Agricultural Trade:
A Chinese Policy Perspective (June 2019)

In light of developments this past year which impacted trade in canola and other agricultural products between Canada and China, this paper provided a retrospective and systemic review of China's agricultural policies. The report examines canola's role in Canada-China agricultural trade, provides an outline of the new governance trend under the Xi Jinping administration that has led to an enhanced focus on food security and diversification of imports through the Belt and Road initiative. The paper concludes by making recommendations for the measures Canada can take to improve its agricultural relations with China, so that trade can resume over the long run. This paper was prepared for CAPI by Zhiduo Wang and Patrick Leblond from the Centre for International Policy Studies, University of Ottawa.

#### Efficient Agriculture as a Greenhouse Gas Solutions Provider (September 2019)

Jointly produced by CAPI and Agri-Food Economic Systems, this paper describes how Canadian agriculture has the potential to be a climate change solutions provider. Canada has reduced its GHG emissions in crop and livestock production as a result of policies, practices and initiatives that have led to the wide-spread adoption of BMPs, precision agriculture, new crops, new technologies and education and training. Canada is now one of the most GHG emissions efficient beef producer globally and has boosted carbon sinks. It is essential that the sector get this message out by developing data and metrics to measure its progress and continue supporting this progress through effective policies.





#### Measuring Externalities in Canadian Agriculture: Understanding the Impact of Agricultural Production on the Environment (January 2020)

By placing a dollar value on the environmental impacts of agricultural production in Canada, a clearer picture has emerged regarding how Canadian Farmers are doing their part to reduce their impact on the environment. CAPI commissioned a team from the University of Saskatchewan and the University of Guelph to develop a methodology and estimate the impact agriculture is having on air and water quality, soil health, climate change and wildlife habitat and biodiversity (i.e. externalities). This is the first report to place a dollar value on the environmental impacts of agricultural production in Canada in order to track it's environmental impact.

#### Canadian Agri-Food Processing Competitiveness, Quality Growth and Global Opportunities: A Snapshot of Current Trends (February 2020)

This CAPI report showed that while Canada's Food and Beverage (FB) processing sector has brought itself from a trade deficit of -\$1.1 billion in 2015 to a surplus of \$2.7 billion in 2018, more investment is needed from both government and industry to take advantage of the growth potential of the Canadian FB processing sector. It is especially important for more investment in the Industry so Canada can remain resilient in times of trade disruptions and other global shifts and to meet export growth targets. This report summarizes a larger study undertaken by Shelley Thompson of SJT Solutions for CAPI to update previous analysis done by CAPI in 2014 on the Food Processing Sector's competitiveness challenges, opportunities and trade deficit in the new world order.

#### Agriculture and Food in, and Beyond, COVID-19: Shoring-Up and Strengthening a Canadian Essential Service (March 2020)

A human disease crisis like COVID-19 impacts the health, movement and behavior of people. Contracting the disease as well as preventing its spread has changed the way we are now all conducting our personal and professional lives. The COVID-19 crisis poses a specific set of risks for Canada. Identifying these risks is step one, but step two is developing an improved focus and a debate on needs in policy and emergency planning. CAPI set out, in a preliminary fashion, some of these risks and suggested possible policy and emergency planning that needs to be implemented in the agriculture and food supply chain. This was done to engender a sincere dialogue amongst industry, government and the not-for-profit associations that develop public policy options, and provide the starting point to CAPI's future policy research with the ongoing lens of the COVID-19 pandemic.

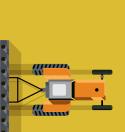


# **Engaging with the Next Generation**

CAPI has engaged with the Next Generation in a number of ways over the past few years. From research internships to initiating the first CAPI Doctoral Fellowship program, CAPI believes the next generation has a valuable role to play in our policy research development and towards building a resilient and sustainable agriculture in Canada.

Why is the Beef Industry Under Fire? A Preliminary Comparison of the Greenhouse Gas Emissions from Canada's and India's Beef Industries (June 2019)

This report was written by CAPI's intern, Marlayna van Hoepen who spent a semester supporting CAPI's research work in 2019. The report explores how India might look to Canada for guidance to develop policy options to encourage Indian beef producers. Better land management practices such as improved water management and rotational grazing would reduce India's GHG emissions. Canada exemplifies success in mitigating GHG emissions and engagement for continual progress.







# CAPI's 2017-2019 Doctoral Fellowship Program

In 2017, CAPI selected a small multi-disciplinary team of four graduate students to research intersectional problems in water management and use in agriculture. Each student was tasked to complete an individual project related to their own disciplinary perspective on agriculture and water. In addition, the entire team completed a joint research report and presented at the Next Gen Seminar to a small group of expert stakeholders, which would be the culminating event of the 2017–2019 CAPI Doctoral Fellowship.

### The Contribution of Wetlands Towards a Sustainable Agriculture in Canada (November 2019)

The four CAPI Doctoral Fellows completed a robust group project on the theme of water and agriculture in Canada. This report provides an interdisciplinary overview of wetland ecosystems in relation to agriculture and demonstrates how these ecosystems can be an important asset for a more sustainable Canadian agriculture. The authors offer a set of recommendations for researchers, policymakers, and farmers that take into consideration the current state of wetland conservation and the potential for future actions.

#### CAPI Water & Ag Fellows 2017–2019 Final Seminar for Next Gen Researchers (February 2020)

As the final piece of the 2017–2019 CAPI Doctoral Fellowship, CAPI hosted a seminar where the Doctoral Fellows had the opportunity to present their findings to a small group of over 30 experts and stakeholders. The presentation was followed by an expert panel responding to the research presented, which was followed by an open discussion between participants. There was representation from AAFC, Canada Water Network, Canadian Federation of Agriculture, Canadian Pork Council, Canadian Wildlife Federation, Carleton University, Ducks Unlimited Canada, Farm Credit Canada, National Farmers Union, and the University of Guelph, to name a few of those in attendance at this final seminar.

#### Environmental and Economic Consequences of Tile Drainage Systems in Canada (June 2019)

2017–2019 Doctoral Fellow Vivekananthan Kokulan studied the environmental and economic consequences of tile drainage systems in Canada as the demand for agricultural drainage has increased recently to tackle uncertainties in precipitation patterns that are anticipated under a changing climate.

### Caught in the Crossfire — The Inter-Jurisdictional Issues Involving Agricultural Water Management in the Ottawa River Watershed (June 2019)

2017–2019 CAPI Doctoral Fellow Alexandre Lillo explored, in this French only paper, the inter-jurisdictional issues involving agricultural water management in the Ottawa River watershed with the goal of bringing together government and non-governmental stakeholders through political-legal strategies.

#### Irrigation, Potatoes and Unintended Consequences of Optimizing Water Management (October 2019)

2017–2019 Doctoral Fellow Jean-Pascal Matteau studied the ways in which certain water management treatments affect the architecture of potato roots and tuber distributions and the consequences of this on potato harvests, with the aim of benefiting potato growers and to serve as a guideline for more efficient water management and irrigation.

#### Soil Health and Soil Security: Regional, National, and International Dimensions (October 2019)

2017–2019 Doctoral Fellow Paul Benalcazar, explored the current and future risks of soil health and social security through a case study of Northern Ontario, by looking at the regional, national and international dimensions of policy options in an effort to encourage better farm practices and reduce soil degradation.







