CIAC 2025 CCEA
AGRI-FOOD & FOOD SECURITY
AGROALIMENTAIRE ET
SÉCURITÉ ALIMENTAIRE

ASIA PACIFIC FOUNDATION OF CANADA
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SUMMARY REPORTS

The annual Canada-in-Asia Conference (CIAC) is a multi-directional engagement platform for Canada-based and Asia-based companies, institutions, universities, and governments. CIAC convenes business leaders, experts, investors, policy-makers, researchers, and innovators from across Asia and Canada to exchange perspectives, knowledge, and ideas, with the goal of facilitating collaborative partnerships. The conference's plenary and concurrent sessions, as well as dedicated networking times, provide a range of opportunities for engagement and exchange with likeminded partners.

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SESSION 1 — Investment & Finance

Addressing Financing Bottlenecks in Agriculture and Agri-food in Asia

SESSION 2 — Artificial Intelligence

Advancing Agri-Food & Aquaculture Systems Through AI

SESSION 3 — Innovation Ecosystems

Advancing Food Security Through Innovation

SESSION 4 — Trade & Supply Chains

Pursuing Food Security in China and ASEAN: Implications for Canadian and International Stakeholders

Addressing Financing Bottlenecks in Agriculture and Agri-food in Asia

From left: Beverley Postma, Executive Director, Grow Asia (moderator); Marie Cheong, Founding Partner, Wavemaker Impact; Shailendra Mishra, Global Head of Sustainability (Food and Feed), Olam Agri; Anuj Kumbhat, Co-Founder and CEO, Weather Risk Management Services (WRMS).

Executive Summary

The CIAC2025 panel "Addressing Financing Bottlenecks in Agriculture and Agri-food in Asia" brought together experts from various sectors to explore the critical financial challenges faced by smallholder farmers in the region. Beverley Postma, Executive Director of Grow Asia, moderated an engaging discussion that underscored the urgent need for innovative financing solutions amidst a volatile geopolitical landscape. The panel featured representatives from venture capital, multinational corporations, and startups, each sharing insights into their unique approaches to financing agriculture. Notably, Marie Cheong from WaveMaker Impact highlighted the role of venture capital in fostering climate tech and agri-food innovations. Dr. Shailendra Mishra from Olam Agri emphasized the importance of regenerative agriculture practices and support and training for smallholder farmers, while Anuj Kumbhat from Weather Risk Management Services (WRMS) discussed leveraging climate risk management solutions to enhance credit availability for farmers. The session concluded with a call for collaborative leadership and the integration of diverse funding sources to empower farmers and ensure food security in Asia.

> **"The fact that we have so many solutions and success stories should give us confidence that [advancing innovative financing and insurance solutions] is scalable once we take a more sophisticated risk management approach using big data innovation and digital tools."**
>
> *– Beverley Postma, Executive Director, Grow Asia*

Key Takeaways

- **Innovative financing is essential:** To close the estimated $100-billion financing gap for smallholder farmers, innovative financial instruments that combine public, private, and philanthropic capital are crucial. Efforts to de-risk investment can help facilitate technology adoption and sustainable practices for Asia's smallholder farmers.
- **Leverage technology solutions specifically designed for smallholder farms:** Organizations like WRMS are revolutionizing agricultural finance by providing access to insurance along with climate risk mitigation services and early weather warning systems, while also linking to digital payment processing. Such integrated systems allow smallholder farmers to establish credit scores and to access formal credit while moving away from informal credit systems. Technology solutions need to be affordable and accessible to farmers in the region.
- **Collaboration through supply chains:** The panel highlighted the necessity for collaboration among various stakeholders, including governments, NGOs, philanthropists, private investors, financial institutions and off-takers (buyers that purchase some or all or a producer's outputs). Collective efforts can spread risk across actors in the supply chain, ultimately benefiting farmers while improving yields and sustainability outcomes.
- **Focus on local solutions:** Successful initiatives should prioritize local contexts and needs. For context, there are about 170,000 farms in Canada with an average size of 809 acres. In the ASEAN region, there are about 100 million farms with an average size of two acres. While there is a lot to be learned from Canadian agricultural systems, some elements won't directly translate. It is important to collaborate with local experts to develop tailored solutions.
- **Employ regenerative practices:** Emphasizing soil health through regenerative agriculture can significantly improve yields while reducing carbon emissions. Creating the right local-level incentives for farmers to adopt regenerative agriculture, including training programs, can enhance farmer resilience and productivity.

Advancing Agri-Food and Aquaculture Systems Through AI

From left: Anne Lochoff, Programme Director, Singapore Agri-food Innovation Lab (moderator); Lesly Goh, The Rockefeller Foundation, Bellagio Resident; Alan Lai, Founder & CEO, ProfilePrint; Matthew Tan, Chief Executive Officer (Asia), Assentoft Aqua Asia Pte Ltd., and APEC Chair for Sustainable Development in Agricultural and Fishery Sectors.

Executive Summary

The CIAC2025 panel "Advancing Agri-Food and Aquaculture Systems Through AI" brought together experts from various sectors to explore the transformative potential of artificial intelligence (AI) in enhancing agricultural practices and food security. Moderated by Anne Lochoff, Program Director at Singapore Agri-food Innovation Lab, the session highlighted real-world applications of AI across diverse regions, particularly in Southeast Asia and Canada. Panellists shared compelling case studies, such as the use of AI in precision agriculture in Vietnam and digital twins (virtual representations of an item, system, or process) in food ingredient trading, illustrating how technology can streamline operations and improve sustainability. The discussion also addressed significant barriers, including data fragmentation, lack of digital literacy among smallholder farmers, and the need for effective collaboration between public and private sectors. By fostering innovative partnerships and sharing best practices, the panel emphasized the critical role of AI in creating resilient agri-food systems to ultimately enhance food security and sustainability.

> **"We found that the AI could now actually help correctly predict when the next algae bloom is going to take place... When will the fish start spawning? When will the fish start to reach a crisis level? The AI actually tells you."**
>
> *– Matthew Tan, Chief Executive Officer (Asia), Assentoft Aqua Asia, and APEC Chair for Sustainable Development in Agricultural and Fishery Sectors*

Key Takeaways

- **Build collaborative ecosystems:** Building multi-sector partnerships is essential. Collaborations among government, academia, and industry can leverage diverse expertise to tackle food security challenges and accelerate the adoption of AI technologies in agriculture. For example, the Singapore Agri-Food Innovation Lab serves as a multi-sector platform to connect agri-commodity trading companies with researchers and startups.
- **Work on data interoperability:** Addressing data fragmentation is crucial. Establishing frameworks for data sharing can enhance the effectiveness of AI solutions, ensuring that stakeholders can access reliable information to make informed decisions. The ability to harmonize and utilize this data across different platforms and jurisdictions remains a significant hurdle.
- **Canada-Asia training and education:** Improving digital literacy among farmers is vital and this is an area for potential collaboration. Tailored training programs can empower smallholder farmers to utilize AI tools, ultimately enhancing productivity and profitability in their operations.
- **Show the tangible benefits of using AI:** Emphasizing sustainability in agricultural practices can drive innovation. Case studies, such as the conversion of agricultural waste into valuable products, showcase how AI can facilitate eco-friendly solutions while increasing economic returns. One speaker described an AI technology used to identify specific nutrients in bales of rice straw destined to be burned as waste.
- **Be realistic – iterative implementation:** Projects need to start small and scale gradually. Successful AI integration requires manageable pilot projects that allow for learning and adaptation, minimizing risks while maximizing impact in the agricultural sector.

Advancing Food Security Through Innovation

From left: Robert Hunter, CEO, Protein Industries Canada; Carla Gomez Briones, Climate and Sustainability Specialist, UN Development Programme Global Centre for Technology, Innovation, and Sustainable Development (moderator); Justine Hendricks, CEO, Farm Credit Canada; Jeff Barlow, Owner, Barlow Farms; John Cheng, Founder & CEO, Innovate 360.

Executive Summary

The CIAC2025 panel "Advancing Food Security Through Innovation" emphasized the urgent need for transformative solutions to address global food insecurity, which affects over 700 million people worldwide. As climate change and shifting trade policies present increasing challenges, panellists identified collaboration as essential for success. By leveraging innovative technologies and sustainable practices, stakeholders can enhance productivity across agri-food value chains. Canada and Asia are positioned at the forefront of this transformation, combining Canada's strengths such as in plant-based proteins production and financing with Asia's dynamic food innovation ecosystems.

The discussion highlighted the importance of fostering partnerships, embracing data sharing, and prioritizing nutrition security to improve the resilience of food systems. Justine Hendricks, President of Farm Credit Canada, illustrated how financing and technology can boost agricultural productivity and sustainability, while Robert Hunter, CEO of Protein Industries Canada, stressed the potential of plant-based proteins to alleviate nutrition insecurity.

> **"When we're talking about innovation, if I said I had a big tractor, a big combine, maybe some satellite dishes, some GPS data transfer to the cloud – yes, that's an important part of it. But it's not just the technology or the equipment, it's the technology we put into the ground: the technology of the fertilizer, the technology of the seed, the technology of the biologicals that I use."**
>
> *– Jeff Barlow, CEO, Barlow Farms*

Jeff Barlow, a sixth-generation farmer from Ontario, Canada, shared insights into the practical challenges and opportunities farmers face in adopting innovative practices, and John Cheng, Founder of Innovate 360, presented Singapore's role as an innovation hub that fosters startups and synergies. The panel concluded that collaborative efforts between Canada and Asia hold great potential for driving significant advancements in food production and distribution, reducing food waste, and ultimately leading to a more secure food future.

Key Takeaways

- **Embrace innovative technologies, while enhancing trust and data sharing:** The integration of artificial intelligence, precision agriculture, and sustainable practices can significantly enhance productivity. Investing in these technologies is vital for meeting the growing global food demand while ensuring environmental sustainability. Importantly, farmers need to feel secure in sharing their data for collaborative innovation. Establishing transparent systems that protect farmers' interests while facilitating data exchange can lead to improved agricultural practices. Consumer acceptance is also a major challenge for new innovations.
- **Focus on nutritional security, not just food security:** Addressing both food and nutritional insecurity is imperative. Canada can leverage innovative agricultural outputs such as plant-based proteins to provide nutritious food options, particularly in regions facing dietary deficiencies.
- **Don't forget food waste:** Tackling food waste is as important as increasing food production. Innovations in logistics, packaging, and distribution are key to making food systems more efficient and sustainable. This is especially true for communities with limited resources.
- **Government support is key:** Political leadership must prioritize agriculture as a critical sector for innovation and economic growth. By aligning policies that support food security initiatives, governments can drive substantial advancements in the agri-food industry. To ensure agriculture's prominence, both political leaders and bureaucrats need to better understand the sector. Stakeholders must work to demystify agriculture and advocate for more resources and attention to this critical area for national and global food security. Relatedly, food security strategies need to be responsive to geopolitical changes.
- **For Canada:** Canada needs to promote its high-quality food products more effectively in international markets, especially in Asia. Agriculture should be viewed as an integral part of Canada's broader industrial strategy. Political and bureaucratic support for agriculture can drive innovation and economic growth while securing global leadership in food security.

Pursuing Food Security in China and ASEAN:
Implications for Canadian and International Stakeholders

From left: Michael Harvey, Executive Director, Canadian Agri-food Trade Alliance (moderator); Cynthia Xing, Managing Director and Head of Greater China, Edelman Global Advisors; Paul Teng, Senior Consultant, NIE International Pte. Ltd., and concurrently Food Security Adviser, Centre for Non-Traditional Security Studies, both entities of Nanyang Technological University Singapore; Maxim Berdichevsky, Counsellor, Head of Agriculture Trade, Embassy of Canada in China; Haiguang Shi, President, RF Trading Co. Ltd.

Executive Summary

The CIAC2025 panel "Pursuing Food Security in China and ASEAN: Implications for Canadian and International Stakeholders" brought together experts to discuss the critical intersection of food security, international trade, and collaboration between Canada and Asia. The panel emphasized the importance of diversifying food supply sources to ensure stability and resilience in the face of global challenges. Panellists discussed China's food security strategy, which aims for self-sufficiency while diversifying import sources. They also discussed ASEAN's food security framework, which is in the process of being renewed and will emphasize financing for smallholder farmers and incorporating a broad swathe of technologies throughout the agri-food sector.

"China's behaviours will impact the rest of the world; Chinese imports alone are the combined purchase and volume for all ASEAN countries for many commodities. So we need to watch China very closely."

– Paul Teng, Senior Consultant, NIE International, and concurrently Food Security Adviser, Centre for Non-Traditional Security Studies, both entities of Singapore's Nanyang Technological University

Experts highlighted that Canada, as a reliable food producer, can make important contributions to helping China and ASEAN economies secure their food supply chains. The conversation underscored the necessity for Canada to maintain strong trade relationships and adapt to the evolving market demands in China and ASEAN, particularly in light of climate change and changing global market dynamics. There is a need for proactive engagement, transparency in trade policies, and fostering trust among stakeholders to navigate the complexities of food security in a rapidly changing geopolitical landscape.

Key Takeaways

- **China's size and influence:** While China's food security policy prioritizes domestic production and self-sufficiency, its agri-food import requirements remain enormous. As a destination market for Canadian agri-food, annual sales to China are equal to almost all other economies in the Indo-Pacific region.
- **Diversification is key:** Countries should diversify their food supply sources to enhance resilience against geopolitical tensions and trade disruptions. Canada's reliability as a food supplier positions it as a vital partner for China and ASEAN in achieving food security. Canada should enhance its collaboration with China and ASEAN to address food security challenges and leverage market opportunities while being aware that market access conditions can change abruptly based on geopolitical considerations.
- **Strengthen regulatory co-operation:** Effective partnerships between governments and industry stakeholders are essential for ensuring food safety and regulatory compliance. Collaborative frameworks can help mitigate risks associated with food imports and enhance trust in trade relationships.
- **Address smallholder challenges:** Support for smallholder farmers in ASEAN is crucial. This includes access to financing, technology, and market opportunities, which will help increase productivity and food security in the region.
- **Build trust and transparency:** Transparent trade policies and fostering open communication between Canada and Asian partners will strengthen relationships and create a more stable trading environment. Trust is essential for navigating uncertainties in international markets.

About the Asia Pacific Foundation of Canada

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The Asia Pacific Foundation of Canada (APF Canada) is an independent not-for-profit organization focused on Canada's relations with Asia. APF Canada is dedicated to strengthening ties between Canada and Asia through its research, education, and convening activities. For over four decades, our research has provided high-quality, relevant, and timely information, insights, and perspectives on Canada-Asia relations for Canadians and stakeholders across the Asia Pacific. Our mission is to be Canada's catalyst for engagement with Asia and Asia's bridge to Canada.

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