

World Agricultural Forum 2017, Singapore

Summary of Conference Proceedings

Keynote: Mr Michael O'Sullivan, Chief Investment Officer, International Wealth Management, Credit Suisse



During the Keynote Address, Mr Michael O'Sullivan, Chief Investment Officer of Credit Suisse, shared future scenarios for globalization, what a “multi-polar world” could mean for agriculture.

Several ruptures, including the election of Donald Trump on an anti-establishment platform, Britain's decision to leave the European Union, and the evisceration of traditional political parties in France, call several hitherto uncontested assumptions about the rules-based and liberal global order into question. For agriculture, these changes are most relevant in the realms of trade, climate, and technological development and transfer.

Despite public rhetoric with strong protectionist overtones, Mr O'Sullivan expresses a high level of confidence that we are not entering a newly protectionist era. While the skewed gains from free-trade have created a significant enough constituency that considers itself to have “lost out” for the election of politicians like Trump, there are simply too many strong interests in both established and rising nations for it to be completely rejected.

Instead, we are heading for a highly regionalised, multipolar world characterised by regional hegemons operating within their own spheres of influence. While this may complicate the sort of rules-based consensus required for global trade, cooperation on climate protections, standardisation, and technological development and transfer, it does not completely negate them. However, this shift to a regionalised global order brings several challenges that the agricultural sector must tackle if it is to satisfy the twin imperatives of producing more food with falling inputs (land and labour) while ensuring the environment on which it relies remains sustainable.

Panel 1: Agriculture and Food Trade in the New World Order

The return of protectionism, agricultural trade challenges, environmental issues and climate change are now very much interlinked and have direct impact on global food security. Furthermore, open and free trade is crucial in ensuring food security in developing and developed economies. The challenge now is simply not limited to resisting protectionist trade policy and increasing food production but more importantly, producing nutritious and high quality agricultural products in a sustainable manner.



Ms Tan Poh Hong, CEO, Agri-Food & Veterinary Authority (AVA), Republic of Singapore, shared the country's strategies to maintain food security.

There are two major challenges that need to be comprehensively addressed by global and regional agricultural trade agreements/economic policies. Firstly, protectionist measure such as tariffs and non-tariff barriers, export bans and unpredictable crises especially natural disasters and political violence disrupt food production, global and regional trade, and stable food supply. Secondly, the current unsustainable agricultural production requires too much resources (water, energy etc.), has severe environmental impact, and generates less nutritious food.

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There are repercussions globally if food production is not done sustainably and global agricultural trade is disrupted. Agricultural products should be nutritious, healthy and sustainable. To address the aforesaid challenges to food trade and food security, the following solutions have been suggested: import source diversification, strategic application of agricultural technology, local and urban-based farming, removal of trade-disruptive barriers and subsidies, strong state support for farmers and food producers, forging regional and international cooperation trade agreements that consider all the interlinked issues to global food security.

Panel 2: Imperatives for Securing the Food Production Base

The emerging knowledge revolution has the capacity to significantly improve production and food security. Public-private partnerships, policy and investments are important drivers for this revolution as they allow for more innovation and new technology to be applied in the agricultural sector.

Extreme weather situations pose the biggest risk to food production as stakeholders are reluctant to invest in an unpredictable environment. Insurance could help safeguard agricultural investments. Parametric-based insurance is a type of insurance that helps protect everyone in the supply chain by insuring them based on third-party data (e.g. weather station information, government reported yield data).

Free trade does not help an importing country during a food crisis, but exporting some products in normal times under free trade maintains agricultural resources in case of need.

There is a call for a paradigm shift from using traditional agricultural methods that are land and labour intensive to knowledge intensive agriculture methods, which includes precision farming, green technology, commercial farming and entrepreneurship support.

Guest-of-Honour Address: Dr Koh Poh Koon, Senior Minister of State, Ministry of National Development and Ministry of Trade and Industry



Guest of Honour, Senior Minister of State, Dr Koh Poh Koon, Ministry of National Development and Ministry of Trade and Industry (centre), was welcomed by Conference Hosts (From left to right): Amb Ong Keng Yong; Rt Hon. James Bolger; Dr Kenneth Baker; Assoc. Prof. Mely Caballero-Anthony.



The ASEAN Perspective was presented by Dr Rangsit Poosiripinyo, Deputy Secretary General, Office of Agricultural Economics (OAE), on behalf of the Ministry of Agriculture and Cooperatives Thailand (Chair Country of the ASEAN Ministers of Agriculture and Forestry).

Dr Koh remarked on the timeliness of the event, as challenges to food security will continue to intensify in the long-term, on the back of population growth, climate impacts on production, and rapid urbanization. It is not possible for a country to produce all the food it consumes, but neither is it desirable given that countries need to specialize in areas where they have comparative advantage. By specializing, they reap the benefits of economies of scale that allow them to better meet consumption needs. Freer trade, opposing protectionism, will

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help further these. However, having some domestic production will nonetheless help in buffering against shocks, and Dr Koh shared how technologies can be enablers and multipliers for agricultural production, as they allow farmers to overcome constraints posed by limited land and water, given climate change. For instance, vertical technologies can boost yields as many times as there are layers.

Singapore's three-fold approach to addressing these challenges is therefore relevant. First is in trade, by building up its logistics and infrastructure capabilities (such as cold chains, cold storage, and Cool Port to better handle perishable items), and diversifying import sources. Today, 20% of global agri-commodities trade passes through Singapore, and the country is also home to 70% of top agri-commodity trading companies globally. Next, Singapore invests in technologies such as irrigation systems and semi-enclosed greenhouses; cutting edge solutions like multi-tiered vertical farming; LED technology; automation; and ICT. Last, he also observed that adopting technology in agriculture is a pull factor in attracting young people to this sector, with the example of Citizen Farm launched in Singapore in June, which applies a gamut of technologies. Its founder was only 31 when he started the company.

Looking forward, he stressed that "our common future depends on our ability to facilitate change and work together to overcome challenges. So sharing of experiences, knowledge, and best practices will help us as we try to enhance our national and global food security."

Panel 3: Technologies to Promote Sustainable Farming and Food Security

The agricultural sector faces two imperatives that exist in tension: first, demographic changes in population size, average age, disposable income, consumption patterns and migration require the sector to produce more food at a higher quality with lower levels of input in terms of land and labour. Second, such intensification of agricultural activity must still ensure a sustainable environment, both for the productivity of the industry and for humanity in general. This is particularly challenging as the environment is already changing due to evolution in the climate. The session presented technology as the universal panacea to square this circle.

Digitisation of crop monitoring is particularly promising as it automates monitoring, allows quick diagnosis of problems, appropriate timing of interventions, and an aggregation of data to allow for better study and thus proposal of better agricultural management methods. Overall, farmers have more data on which to base choices, providing a more holistic perspective of the agricultural ecosystem and increasing the likelihood of optimal and efficient outcomes. Digital monitoring also facilitates compliance with environmental regulation.



Mr Bernd Naaf, Head of Business Affairs & Communications, Crop Science Division, Bayer AG, set the scene for panel on how technologies are promoting sustainable farming and food security, such as digital technologies that drive agricultural productivity.

Investment in new technologies is undermined as price controls limit scope for returns on investment. In addition, there is a trend to provide trade protections to new agricultural innovations, distorting the market. This is especially true when those innovations are seen as answers to questions of national food security.

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Panel 4: Good Governance, Partnerships and Agricultural Productivity

Food governance is under pressure for changes, which have been driven by urbanization, population growth, cost and availability of inputs (i.e. labour) and climate change. Asia is among the regions most affected. Youth involvement/engagement is essential for achieving food security in the future. Non-state actors can play an important role in promoting education, awareness, and entrepreneurship.



Mr Suriyan Vichitlekarn, Regional Project Director, Better Rice Initiative Asia, GLZ, shared how profits from public-private partnerships in agriculture can be socialised.

There has not been sufficient awareness of the importance of agri-culture/food-related knowledge in countries. Urban agriculture is emerging as a solution to the challenges facing urbanized society, but there is a lack of interest among young people in farming.

Unsustainable models of production like excessive use of pesticide constitute a serious risk factor of long-term productivity. Premium prices do not necessarily represent high incomes and better livelihoods for small stakeholders.

Innovative and responsive governance relies on changes in the mindset of stakeholders. Farmers and farmers' institutions should be given a bigger role, and other actors/stakeholders are implementers and facilitators. Cross-sectoral partnership is critical for the success in realization of food-related SDGs. Sustainable farming practices and transparent and open agri-business should be promoted. Social media provides an effective channel for engaging with the next generation.