

*RSIS Commentary is a platform to provide timely and, where appropriate, policy-relevant commentary and analysis of topical and contemporary issues. The authors' views are their own and do not represent the official position of the S. Rajaratnam School of International Studies, NTU. These commentaries may be reproduced with prior permission from RSIS and due recognition to the author(s) and RSIS. Please email to Mr Yang Razali Kassim, Editor RSIS Commentary at RSISPublications@ntu.edu.sg.*

---

*Food Insecurity*

## **Overcoming Fragmented Food Systems and Trade Wars**

*By Paul Teng*

### **Synopsis**

*Asia is not likely to produce all the food it needs in the foreseeable future. The fragmented nature of Asian food systems is a major reason. Trade has become an important guarantor of food sufficiency for many ASIAN countries. Taken together, fragmented farming systems and trade wars are threats to Asia's ability to achieve stable food security.*

### **Commentary**

IN THE past year, Asia's food systems which link the farmer to the consumer, have been described as "sick" and "need to be fixed" by academic and industry leaders. A recent report *Separate Tables: Bringing together Asia's food systems* by the Economist Intelligence Unit (EIU) released on 3 September 2018 affirmed this. It identified six megatrends affecting Asia's food systems – urbanisation, changing diets, malnutrition, differential adoption of technology, food standards and food politics. Trade was named as one way to overcome some of the challenges posed by these trends.

As a region, Asia does not produce enough food now or is it expected to do so in the foreseeable future, according to the Food and Agriculture Organisation (FAO). So trade through the geographically-dispersed supply chains which typify current food systems has been the main means for Asia to meet this deficit. Any disruption along these supply chains affects food security.

### **Trade Tensions and Food Disruptions**

The ongoing “tit-for-tat” tariffs between countries could shift the points of origin for commodity supply chains such as those of soybean. One case in point is China’s plan to levy a 25% tariff on imports of US soybeans, an important feed to produce hogs, chicken and fish. In 2016, the top five soybean exporting countries, all from the Americas (United States, Brazil, Argentina, Canada and Paraguay), together accounted for 94% of the world’s volume of available soybeans.

China is the world’s largest soybean importer and in 2016 imported US\$34 billion of global soybeans or two-thirds of global supply. With American soybeans potentially costing more to Chinese importers, the US may be giving up market share to other producers like Brazil and Argentina. So other large soybean importers like Japan, South Korea and Indonesia may benefit from a potential drop in US soybean prices if supply there exceeds demand from its traditional largest importer.

But Asia’s demand for food and feed items is not limited to soybean. In the 2017/2018 trade period, Indonesia has been predicted by the US Department of Agriculture to become the world’s largest wheat importer, at about 15 million tonnes! Asia is also a large importer of maize even though the region itself is a large producer in terms of area planted.

### **Sorting Out Asia’s Food Insecurity**

The world is strongly dependent on surplus food production in the Americas and Australasia to maintain global food security balances. Not coincidentally, these regions practice industrialised, technology-based farming on a large scale when compared to Asia’s mainly smallholder food farming which, according to the EIU, currently under-utilises modern technologies. This is particularly the case in the three Asian giants – China, India and Indonesia.

So a bigger question has to be asked: what are the implications for the region of trade conflict between food exporting and food importing countries? Governments need to re-examine their approaches to ensuring national food security and adopt a balance between achieving limited self sufficiency and partial reliance on imports.

There are no inherent contradictions between desiring some level of food self-sufficiency and food importation, as countries like Singapore have shown. Singapore has consistently been rated by the EIU Global Food Security Index as one of the most food secure countries in the world despite importing 90% of its food. In a perfect world, unfettered trade will move food between producers and consumers and an overall increase in production means more will be available for trade.

To achieve some level of self-sufficiency, governments and the private sector will need to address the many well-researched issues – small farm size, low productivity, under-exploited use of technology, declining rural populations, agriculture’s declining contribution to GDP and contradictory government policy.

Both the EIU and FAO reports noted similar trends and highlighted that Asia’s fragmented food systems means that solutions must also address the needs of the smallholder farming predominant in Asia (87% of the world’s smallholder farm

population). Some optimism may be drawn from the success stories in Asia; this region is already the world's top producer of many food items, from rice to vegetable oil to fish. So can such successes be repeated for other food items?

### **Pro-Activating the Future: Mega-Solutions for Megatrends?**

Asian governments need to increase their investments in research, technology transfer and extension services to boost farm production by small farmers. These can go a long way to address the so-called megatrends in food systems and Asia's fragmentation.

The 3 September 2018 EIU report proposed some mega-solutions to the six challenges: considering food security in a more holistic manner; anticipating the convergence of trends to set appropriate policy; improving national capacity to monitor food system performance; and involving the private sector through more directed business strategies.

Addressing the urbanisation phenomenon and the related decline in farmers is not just about making farming more lucrative. It is about making rural living more attractive because as long as rural communities suffer a living standard difference from urban communities because of access to amenities like good schools and income gaps, the rural to urban migration will continue.

At least four of the EIU report's megatrends can also be tackled by cities developing urban farming with technology-enabled agriculture. This is a fast growing industry in the US, China, Japan, Korea and even Singapore where proximity to consumers, creative use of space for plant factories which buffer against variable weather, is helping to feed cities with fresh vegetables.

Assuring food security in the future will further require that Asian countries start putting in place policies and action to reduce food waste and moderate the rate of loss of land and water resources for food production. The rise of agtech (agricultural technology) and fintech (financial technology) in Asia will help accelerate progress in all three by making new technologies and information accessible to small farmers.

Finally, as I have said in an earlier commentary, a "Glocal" (Think Global, Act Local) approach is needed to address the connectivity between mega-trends and action solutions at local levels.

---

*Paul Teng is Adjunct Senior Fellow at the Centre for Non-Traditional Security (NTS) Studies, S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University. He formerly held leadership positions at The WorldFish Centre, The International Rice Research Institute and Monsanto Company.*

---