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World Agricultural Forum 2017

Food Security and The "Terrorist Within Us"

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Synopsis

During the recent World Agricultural Forum (WAF) 2017 Conference, jointly organised with RSIS in Singapore, the role of cross border trade on food security was examined. Another related but under-discussed topic, is food safety.

Commentary

DESPITE THE recorded high in total global population and food production there are 800 million people world-wide suffering from hunger. One of the critical limiting factors for the paradoxical mismatch of supply and demand in food is barriers to international trade. For more than a decade, despite the tremendous amount of resources and time spent by WTO members, negotiations in agriculture trade have been to no avail.

To further advance trade negotiations, perhaps trade negotiators – be they in WTO, bilateral or regional platforms – could borrow a page from the ASEAN-China Free Trade Agreement, where all Parties have committed to make the agriculture sector the Early Harvest Package, based on the comparative advantages of ASEAN and China. If trade policy makers are serious about making real progress in international trade, especially when there is increasing trade protectionism since 2007/2008, then bold new approaches should be introduced.

"Manufactur-ising" Agriculture

To date, the agriculture sector has progressed and transformed in recent years beyond recognition especially with more investment allocated and use of

technologies ranging from precision farming to data analytics to internet of things, gene editing etc. In short, agriculture production process has become increasingly systematised and had evolved into an industry parallel to the manufacturing sector, especially where scientific and technical knowledge coupled with precision equipment and sensors are used, as observed in urban farming.

It is evident that goods and services are closely integrated and intertwined. Increasingly, information and communication technology (ICT) is forming part and parcel of many tangible products. Similarly, sensors and ICT are also integral parts of services.

In contrast, under the WTO framework, agriculture, goods and services are treated under three different and separate agreements. With such framework, negotiators in WTO may directly or indirectly adopt a silo approach. Given the long and protracted nature of WTO negotiations, one could expect the likely outcome of such agreements to be obsolete and out of sync with the commercial reality.

Now is the time for the global community to push for the changes in business models and technologies by having an integrated single agreement covering goods and services for WTO, bilateral and/or regional trade deals. Such bold agreement should include agriculture so that food supply can be unlocked through free trade to address the challenge of food demand and food security.

Two Trade-related Issues

Moreover, two other trade-related issues must be considered. For example, selling price of New Zealand avocado in Singapore could be cheaper than in New Zealand purely as a result of bulk discount. Trade policy makers therefore need to re-examine the treatment of by-products and volume discount for bulk purchase in both manufacturing and agriculture sectors within the context of the current WTO Anti-Dumping Agreement, ie whether the existing agreement is indeed trade-facilitating or trade-limiting factor in international trade.

The next issue for trade policymakers and negotiators to ponder is the Country of Origin (COO). Many tangible products have embedded proprietary knowledge and technologies. However, to incorporate these unique features, such products need not be physically shipped from or routed through the original country where these unique knowledge and technologies are created during the production processes. Thus, the attribution of which is the COO for the product becomes an issue especially in the case of preferential trade.

Likewise, all the trade issues discussed above are equally important and applicable to agriculture trade if the global community is serious to unlock agriculture trade to address the challenge of global food security.

Beyond Trade: Antibiotics

At the recent WAF conference, James Bolger, Chairman of the WAF Advisory Board and former prime minister of New Zealand, had articulated that “we (humans) need the earth to live but the earth does not need us to live”. Such timely advice on the

needs for the global community to focus our attention on the health of our planet earth triggers us to share our concern on another issue equally important and critical to the existence of our human civilization, viz antibiotics.

Following the invention of antibiotics, they have been selectively used in livestock farming. Initially, antibiotics were utilised for therapeutic purposes such as treatment of animals detected with sickness.

Since the 1950s, it was reported that antibiotics were added to animal feed to increase and promote the growth rate of livestock in the United States. Increasingly, such practice is found almost globally. Today, it is estimated that around 70% of all antibiotics administered are used for livestock.

Furthermore, it is estimated that around 80-90% of all antibiotics ingested by both humans and livestock are not broken down in the passage through the body and enter the environment as waste. Even as a waste product, these antibiotics retain most of their potency and are able to affect bacteria and promote antibiotic resistance even after they enter the soil or water.

Implications of Genetic Changes

Over time, the extensive use of antibiotics in both livestock and human creates genetic changes in bacteria and other microbes, leading to the elimination of the effectiveness of drugs to cure or prevent infections. This has severe consequences as antibiotic resistance is known to pass from bacterium to bacterium; and resistant bacterial infections can also pass from person to person. In essence, every person could potentially become a “terrorist within each of us” as the antimicrobial resistance (superbug) is taking root in our society.

Without effective antimicrobials for treatment and prevention of infections, this implies that infections from surgical procedures such as transplants, caesarean sections or hip replacements and infection in immunocompromised patients following chemotherapy for cancer treatment, will likely result in prolonged illness, disability, and death.

While addressing food security through free trade is critical for human survival, we should not forget the “terrorist within each of us”. As a global community, we should work in parallel to limit the usage of antibiotics in both human and farms; and commit to share information gathered in different countries relating to antimicrobial resistance. Such an initiative would facilitate the creation of a global database of DNA sequences for microorganisms to enhance food safety and global public health.

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