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World Agricultural Forum 2017

Singapore and Food Security

by Ong Keng Yong

Synopsis

Food security can be enhanced by strategic initiatives. Land scarce countries can still do much for agriculture and farming with effective policy measures. Singapore has learned to address the multi-faceted challenges of food security with good planning, efficient utilisation of available resources and clear vision for the future.

Commentary

WHILE MANY analysts have raised concern about feeding the world's estimated 9.7 billion population by 2050 due to the prospects of supply not meeting demand, others have refuted this claim on grounds that even today, more food is produced than is actually consumed or needed. Yet the problem of hunger is still found in many parts of Asia and Africa. The persistence of hunger reflects the fact that food security is not only about having sufficient quantity of food available, but also about having physical and economic access to it.

In dealing with food security, the Singapore story is germane. Singapore does not grow nor produce most of its own food because of its limited land area. It has to import 90% of the country's total consumption from abroad. Despite these limitations, food supplies are well managed. For a land scarce country, Singapore is regarded as the most food secure country in Asia according to the Economist Intelligence Unit's Global Food Security Index (2016), and is also ranked 3rd globally. Singapore, in fact, has been able to work around its constraints and has shown impressive results in meeting its food and agricultural needs. For example, Singapore has increased self-sufficiency in leafy vegetables from 7% in 2010 to 12% today and it has been leading in technology and innovation in food production. How is this achieved? Three things stand out that merit attention.

Major Hub for Global Agricultural Trade

A key feature in Singapore's economic development policies is its multi-pronged yet integrated and coherent approach to stay relevant and be plugged into the global economy. There is a constant reference to change and future. The focus is on how to maximise utilisation of available resources and innovate public policy where necessary. Public education is purposefully carried out to get citizen's support as well as to launch entrepreneurial activities.

Since its independence, Singapore has worked hard to become a major hub for regional trade and commerce. It has built and developed excellent infrastructure including roads and ports to continuously draw investments into the city-state. Singapore strategically devises policy measures and incentive packages to maintain its economic competitiveness and role as the key centre for business, finance and transportation in Asia.

The traditional entrepot functions of Singapore brought many Southeast Asian companies and international business to the island republic. Over the years, while Singapore does not have an agriculture sector, it captures 20% of global agricultural commodities trade. With its well-established networks of consumers and producers of agricultural products, Singapore now serves as a significant node for agricultural trade in the region and the global chain.

With no signs of letting up, Singapore further plans to strengthen its role as a key trading centre for agricultural goods and food. The initiative revolves around a well-melded eco-system where every aspect of servicing this trade is efficiently developed.

Leveraging on Technology

Today, the landscape of food consumption, production and trade has changed significantly. With the rise of per capita income in developing countries, consumers are more exacting in food quality and safety. Imports of meat and cereals have grown due to increasing demand. On the other hand, climate change, rural-to-urban migration and population expansion threaten to reduce the yields in agricultural production, affecting supply. Given the risk that less food could be produced, the future of smallholder farms is under threat. Therefore, food security policies need to be reviewed regularly.

Against these trends, there is now more push to modernise agriculture. In Singapore, policy attention and multi-sectoral collaboration are given to develop science, technology and innovation. Singapore has recorded a number of achievements. Home-grown companies like Apollo Aquaculture, through its innovation of farming fish in stacked indoor tanks and treated water, is able to increase yields and reduce fish deaths amid warming climate affecting open sea.

Similarly, companies like Panasonic and Temasek Life Sciences Laboratory are using technologies such as vertical farming and optimisation of indoor temperature and humidity to not only increase yields dramatically, but also open up possibilities of growing fruits and vegetables not indigenous to Singapore.

Singapore is ever conscious of the need to further technological advancements to expand avenues of food and agricultural trade. Singapore has invested heavily in food science and technology. One example is Nanyang Technological University's Food Science and Technology Programme and Food Technology Centre whose mission, among others, is to explore alternative ways of food treatment and hazard assessment. Strategically, Singapore is planting the seeds to become a knowledge hub for developing new and sustainable ways of producing food and contributing to the growing of agriculture.

Harnessing Talent

While agriculture has traditionally been ranked lower compared to the other sectors of the economy, apart from the technical and scientific research related to it, the advent of new farming technologies and further growth in agri-commodities trade have paved the way towards creating more professional-level jobs.

With growing presence in Singapore of top agri-commodity trading companies, such as Olam International and Cargill, as well as corporate giants such as Monsanto and Syngenta, there is potential for more jobs in transportation and logistics management, finance, microbiology, and data/statistical analysis, among others.

While Singapore has attracted foreign talent as part of its policy to drive economic growth, the imperative now lies in harnessing more local talent to meet the job requirements in the agri-food sector. Apart from offering more courses related to these in the higher institutes of learning, the younger generation has to be encouraged to pursue careers in the relevant fields.

With more activities to profile and grow Singapore's eco-system for agricultural and food trade, there can be greater interest in agri-food occupations among Singaporeans who are also likely to venture abroad for opportunities in farming and food enterprises.

In sum, Singapore's food security strategy stresses the importance of trade, technology and talent through policies such as food source diversification, optimal local food production and building multi-sectoral networks. Policy planners look at the country's strong trade and diplomatic links as well as overall national development to ensure Singaporeans enjoy a regular and resilient supply of food.

It is therefore appropriate that Singapore is the setting for the 2017 World Agricultural Forum (WAF) Conference, a biennial gathering of corporate chiefs, policymakers and experts in the field of agriculture and food production. The S. Rajaratnam School of International Studies (RSIS) is co-hosting this event on 6-7 July 2017. Alongside WAF 2017 will be a Youth Engagement Event, co-organised with Singapore's Kranji Countryside Association wherein some of the experts at the Conference will be sharing insights with students in Singapore.

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