

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.

Global Health Security

COVID-19: Its Impact on Food Sufficiency

By Paul Teng

SYNOPSIS

While COVID-19 has focused attention on the immediate danger of food shortages, it behooves small island states like Singapore to continue efforts to develop more stable and sustainable food sources. And to put in place public outreach programmes which inform on food and nutrition security.

COMMENTARY

FOOD IS an existential need for Singapore. That this has always been so was brought home to many Singaporeans when Malaysia's recent nationwide lockdown on travel massively affected the vital supplies of food to the country via land. While the immediate impact has abated, this has affirmed what is already known – that Singapore is vulnerable to supply disruptions and its citizens need to be prepared for future shocks to avoid the panic buying that was seen.

Singapore's handling of the COVID-19 threat and its spread has been cited as a model for others. So can Singapore's response to managing food insecurity similarly become a model for others to replicate?

The "Perfect Storm"

In January 2020 I wrote an Opinion Piece for the South China Morning Post in which I warned of impending price spikes in food due to a convergence of events in 2019 going into 2020: the African Swine Fever epidemic; the Fall Armyworm eating up large

areas of maize; the prolonged drought in Australia reducing exports like wheat; and bushfires destroying rangelands and livestock in Australia.

And this was before COVID-19 became recognised as a pandemic. And before food exporting countries started to put into place measures that restricted people movement, and implicitly, movement of people needed in the food supply chain. Production, harvesting, processing and transport of food have been affected in countries which saw infection spikes.

Fortunately, governments like China have taken measures to ensure that the planting of new crops and growing of new animals can take place by allowing “green channels” to deliver inputs like fertiliser and feed to farming communities, and Singapore has activated alternative supply chains.

Forthcoming are threats from swarms of locusts originating from Western and South Asia, and Avian flu. Also not felt as yet has been the impact of reduced food and feed shipments from the Americas to East and Southeast Asia. All these suggest that the coming months will be critical in determining if there will be more supply shocks.

The Singapore Food Story

Recognising its vulnerability to external events, Singapore launched its “Singapore Food Story” in March 2019, which set a target to produce 30% of Singapore’s nutrition needs by 2030, thereby reducing some of the vulnerability. This represents a 300% increase from the current target of 10%, and builds on the small number of technology-enabled vegetable, egg and fish farms.

Since March 2019, there has been a flurry of activities by two lead agencies, namely the Singapore Food Agency and the A*STAR. This has further been accompanied by increased activity in the startup community associated with conventional as well as novel food like “clean meat” and “plant-based protein”.

All these augur well to increase the amount and quality of certain food items and also to create the capacity to develop exportable agri-food technologies. But the reality is that any ramp-up in local food production will not be immediately felt and there remains the important need to assure supplies of the other 90 % of Singapore’s current food needs.

Addressing the other 90%

Singapore imports food from over 170 countries as part of its source diversification strategy. Supply disruptions from one country or group of countries in the same region may be counter-balanced by increasing supplies from other source countries. In principle, this is very sound.

In practice, as we saw with the Malaysian lockdown, dependence on any country for a large share of any food item poses both real and perceptual threats. With about 40% of its fresh vegetables and 37% of chicken coming from Malaysia, any lockdown gives rise to the perception of shortage and leads to panic buying.

It was only after high-level reassurances of adequate stock and alternative supplies, and visuals of food trucks crossing from Malaysia into Singapore, that the public was re-assured. A lesson learnt is that it may be prudent to ensure that not more than a third of any food item comes from one country, and that there are other countries capable of replacing the amounts of undersupply at short notice.

Looking to 2030, even with the 30% target met, attention will have to continue on the other 70%, especially with regards to food which does not make sense to produce in Singapore, such as grains which require much land (like rice) or animals which are highly polluting to grow (like hogs).

It is not too early to augment the current diversified sourcing approach with added criteria like a country's "ramp-up" capability to produce more, and its capacity to export under food emergency situations. In this respect, countries with proven regular surpluses of production over domestic consumption for any food item are good candidates.

Food Security & Nutrition Security

With COVID-19, assuring sufficient food has to be accompanied by adequate nutrition to meet the body's needs for vitamins, minerals, etc. The longer any mobility lockdown lasts, the higher the risk of unbalanced nutrition occurring. Also, in times of crisis, getting more community participation to deal with the crisis is important.

One under-utilised area which can be ramped up in weeks, in anticipation of import limits, is to expand the number of community gardens and allow them to sell their excess produce. This will require the mobilisation of technical resources, inputs and a change in regulations. But vegetables, especially locally adapted and indigenous vegetables are relatively easy to grow and maintain, and most have high nutritive value.

Unused urban space in housing estates could also be converted into tastefully landscaped vegetable gardens. Pilot facilities like that announced by Life3Biotech to create Integrated Agri-Food hubs in different parts of the island will also be important to get ownership by the community into growing and valuing food, especially vegetables.

While no estimates are available, multiple efforts like these, together with small-scale vegetable growing in the backyards of landed and non-landed properties, when combined with rooftop vegetable growing (common in Seoul, Korea) will do much in the short term to increase the supply of nutritious vegetables.

Paul Teng is Adjunct Senior Fellow (Food Security) at the Centre for Non-Traditional Security Studies, S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University (NTU) Singapore and Managing Director, NIE International Pte. Ltd. This is part of a series.
