

ThinkingAloud

Chicken, climate and choices in a food crunch

Supply chain disruptions are here to stay – our best response is to ensure we have a range of options and are able to adjust when needed



Zakir Hussain
Singapore Editor

One of my earliest recollections of live chickens was in cages at the old zinc-roofed Geylang Serai market.

Up till the early 1990s, chicken – and duck – stallholders at wet markets across Singapore often doubled up as butchers, reaching in for a bird when a customer wanted one.

The poultry section was marked not just by the din of chickens squawking, but also by the sight and smell of feathers, blood and guts as they spilled onto the floors and drains.

Thankfully, in 1990, the then Environment Ministry announced that the slaughter of poultry would be phased out in wet markets in two years.

It said the move would ensure the birds are killed in hygienic conditions, and prevent the pollution of drains within the markets.

The Straits Times reported that at the time, there were over 600 poultry stalls in 112 wet markets and about 69,000 birds were slaughtered daily.

The announcement was met with mixed reactions from both stallholders and consumers, with some housewives quoted as saying the few hours' difference needed to slaughter, pack and transport the birds would make a big difference.

Days after the last bird was slaughtered, in March 1993, stallholders and shoppers were reported welcoming the cleaner surroundings.

Some 30 years later, poultry sellers at wet markets faced another major shift when Malaysia announced it would ban chicken exports from June 1.

Last week, Malaysia partially lifted its ban, allowing poultry producers and importers in Singapore to bring in live kampung chickens and black chickens from across the Causeway.

But a degree of uncertainty remains – and Singaporeans may have to adjust to the fact that fresh chicken like we are used to, ferried over daily from farms in Johor and beyond, slaughtered at local abattoirs and then shipped to wet markets and supermarkets islandwide, might one day be a thing of the past.

It could happen sooner, or some time down the road. But just as adjustments were made when the slaughter of poultry at markets was phased out, this new normal is something companies and consumers must eventually need to brace themselves for.

Already, Singapore is looking at ramping up supplies of fresh chicken from abroad, including Thailand and Indonesia.

If Malaysia's ban on chicken exports persists, these alternatives could help meet some of the demand.

The Singapore Food Agency has also been working to diversify Singapore's sources of food imports.

It is pushing ahead with the "30 by 30" goal – meeting 30 per cent of the country's nutritional needs locally by 2030, up from less than 10 per cent now.

But we should also be open to adjusting what we consume.

FOOD PROTECTIONISM

Recent conflicts and the climate crisis have underlined the need for change.

A new report published by the Hinrich Foundation last week on the geopolitics of food security by research fellow Alex Capri, who lectures at the National University of Singapore's business school and Lee Kuan Yew School of Public Policy, outlines the dire global landscape.

Russia's invasion of Ukraine in late February and the ongoing blockade of Ukrainian ports in the Black Sea have withheld millions of tonnes of grain from global circulation.

Both countries accounted for 30 per cent of global wheat exports, 23 per cent of barley exports and over 50 per cent of trade in sunflower oil. Ukraine also supplies 15 per cent of the world's maize and Russia 11 per cent of the world's corn exports.

Extended periods of drought have also resulted in crop failures in India, a major source of wheat. Countries have raced to secure food for their own people amid concern over declining supplies.

These constrain the flow of food commodities across borders and drive prices up.

As a result, countries are resorting to protectionist trade policies, raising export quotas and taxes, and banning the export of some items.

By May, 19 Capri counts 35 countries as having resorted to some form of food protectionism, from Argentina blocking exports of soybean meal and oil, to Egypt

and India banning exports of wheat. Chemical fertilisers have also fallen under the shadow of food protectionism.

Malaysia's chicken farmers have come under pressure because of the rising cost of chicken feed. At the same time, climate change is creating various challenges for the world's food supply.

The Hinrich Foundation report notes that extended drought, heatwaves and wildfires, flooding, pestilence, soil erosion and water scarcity are conspiring against future crop productivity and continuity.

And leveraging scientific innovation and technology can help a country improve its food security. Technology spans areas such as seed resilience, precision agriculture technologies, vertical farming, lab-grown proteins as well as water scarcity and agri-tech.

Scientists are engineering harder, more resilient seeds for foods such as wheat, rice, corn and soybeans. As such, the world's leading seed companies rely on more research and development (R&D) to keep up with the challenges of food security," the report notes.

Singaporeans may have to adjust to the fact that fresh chicken like we are used to, ferried over daily from farms in Johor and beyond, slaughtered at local abattoirs and then shipped to wet markets and supermarkets islandwide, might one day be a thing of the past.

It also cited how in 2019, the world's largest agrochemical companies had a market capitalisation of US\$233 billion (S\$324 billion).

Last year, the agricultural branch of German manufacturer Bayer invested US\$2.1 billion in R&D for crop science, which produced 430 different varieties of hybrid seeds for vegetables, cotton, corn and soybeans.

The report adds: "Increasingly, the world's leading agricultural companies look more like technology firms."

"Today, leading-edge R&D for food security is based on molecular genetics, plant biology/physiology, recombinant DNA, advanced genetic engineering, and bio-informatics, which analyses complex biological data such as genetic codes."

"Recent research has been remarkable, leading to, among others, less water-dependent crops and more profuse photosynthesis in leafy vegetables."

FOOD INNOVATION

There is a fair bit of innovation and investment already taking place. These widen the availability of choices for consumers as conventional meat consumption grows and prices rise.

The Singapore Institute of Technology (SIT) is working with industry partners on healthier plant-based products, and in April, jointly launched with Enterprise Singapore and JTC Corporation a shared facility for companies to test products in smaller batches for small-batch food production.

The facility in Senoko Drive is a key part of the university's sustainable food innovation programme, which aims to help local companies grow and innovate through food technology.

That same month, SIT also

signed a collaboration agreement with The FoodBowl, a New Zealand government-supported food innovation network, to develop sustainable food innovations that benefit people and the planet.

In March, California food tech company Eat Just broke ground on the largest plant-protein factory here yet on a 2.7ha plot – a little smaller than four football fields – in Pioneer.

And earlier this month, it broke ground on a new 30,000 sq ft facility in Bedok, which will be Asia's largest cell-cultured chicken plant.

Last week, The Sunday Times reported that Malaysia's ban on chicken exports saw an uptick in sales for alternative meats.

The Covid-19 pandemic has also made people more conscious of climate change and issues like animal welfare, food safety and food security.

For now, many hope that fresh chicken from across the Causeway can resume being shipped to Singapore as it was before June 1, and sooner rather than later.

If it doesn't resume, there will always be frozen chicken.

And if it does, there could well be future disruptions to supply, whether due to domestic policy or disease.

As Covid-19, the Ukraine war and recent climate changes show, supply chain disruptions will be here to stay. Our best response is to ensure we continue to have a range of options and choices, and to adjust to them.

And as alternative plant-based chicken substitutes from OmniMeat to Tindle become increasingly common on supermarket shelves, they are worth trying out.

At least you know what you might be able to adapt to.

zakir@sph.com.sg



ST ILLUSTRATION: CEL GULAPA