

THE new norms post-pandemic are arduous and challenging for Malaysia's agriculture and food industries.

The supply chain disruption during the pandemic exposed Malaysia's vulnerability in food security during climatic threats and market uncertainties. As in the earlier food crises — 1973-1975, 1980s, 2008, 1997/1998 and 2023-2024 — food security showed weak resilience.

The 1973-1975 rice crisis saw the government take control of the padi and rice industry via protectionist policies of fixed farm and retail prices, import monopoly, licensing and regulatory measures. This policy has lasted till today and explains the slow growth and problematic performance of the industry.

During the 2008 crisis, the government subsidised millers and Bernas to produce SST15% rice for the poor as the price reached US\$1,015 a tonne in May that year. Despite the subsidies, there was no SST15% in the market, hence benefiting the two said industry players at the expense of public coffers and poor consumers.

Insufficient local food production and restrictive supply chains contributed to food shortages during the pandemic. The nutritional insecurity among the disadvantaged was serious, as instant noodles accounted for 50% of food expenditure as protein and fresh food were not affordable.

There were price hikes in the 2023-2024 rice crisis, as well as market manipulation by mixing (local and imported rice) for arbitraging profit and hoarding in which local rice was not available.

Clearly, those market and food insecurity sketches are systemic in nature but the government chose firefighting strategies rather than structural change to uplift the industry.

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Sow seeds of resilience



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■ Food security showed weak resilience in previous food crises

■ Supply chain disruption has somewhat been restored but the war remains unresolved

■ The bigger challenge is global warming which threatens agriculture practices

demand imbalance is a constant phenomenon, while climatic factors are here to stay. Lessons from the past crises are clearly written on the wall, i.e. the landscape for agriculture and food has turned a new leaf.

The probable future landscape for agriculture and food is an ecosystem built on multidimensional factors which are not only interconnected but interact in causal and effect loops.

When they interact in loops, it is difficult to trace the causal and impact factors. The ecosystem mimics the military's concept of VUCA which stands for volatility, uncertainty, complexity, and ambiguity. Fast forward, under such a landscape, Malaysia has two choices: business as usual (BAU) or to seize the challenges.

BAU would mean the dichotomous situation of industrial vs commodity food stays. But as written in the world's SDG (Sustainable Development Goals), the first three goals are related to food; SDG1: no poverty, SDG2: zero hunger and SDG3: good health and well-being.

Food security is more crucial than ever due to the VUCA challenges. It is timely then that Malaysia embraces the "Food First Policy" to uplift its food sector to feed the growing population and weathering the climatic challenge. Continuing BAU would run the risk of similar outcomes, if not worse.

The industrial crops exhibit three major archetypes, i.e. oil palm will reach its ceiling when it hits 6.5 million hectares, rubber shows exponential decay behaviour while cocoa is a "boom and bust" story.

These mono-cropping sectors are highly extractive in nature. The three crops are destined to reach the decaying stage of their life cycle. The better path then is to be the world hub of downstream sector for the three crops.

The Food First Policy entails a bigger investment with priorities in addressing two major themes; the structural impediments and climate change. As for the Agrofood Policy 2.0, it has laid out measures to improve productivity and supply chain efficiencies.

The bigger challenge is global warming which threatens agriculture practices through rising sea levels leading to reduction of land size and salinity intrusion and stress on water supply.

Additionally, fluctuations in peak temperature could reduce crop yield, change rainfall concentration and cause droughts or floods and increase the frequency and severity of natural disasters. The Agrofood Policy emphasises sustainable agriculture to mitigate these scenarios.

ICT and advanced technology solutions are the best to minimise risks while improving resource use.

India has proven this by becoming the world leader in rice exports within a decade. Its strategies include incentivising start-ups to produce numerous apps to improve production through precision farming, smart automation and machines, drip irrigation to reduce water footprint, digital farm management records, digital platforms for expert services, input and output distribution.

Also beneficial are the use of GIS applications for irrigation terrain mapping, drainage modelling, livestock monitoring, flood/erosion/drought control, land degradation estimation, erosion, surveillance and management, and insect and pest control.

In order to survive in the coming decades, Malaysia must be steadfast in implementing both technology-smart agriculture and climate-smart agriculture. Malaysia can become a tropical leader in these two technologies with the right strategies and policies.

