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Strategies for a More Sustainable Path Toward Singapore's Food Production Goals

By Deborah Koh

SYNOPSIS

Plans to boost Singapore's local food production have been hindered by global disruptions, leading to a wave of local farm closures in their aftermath. On the home front, reorienting existing strategies could help address demand- and supply-related gaps. Opportunities for grant realignment, public messaging, and education may provide a means to ease business continuity challenges and help faltering consumer demand gain traction over time.

COMMENTARY

While the COVID-19 pandemic and the Russia-Ukraine War have nudged a needed strengthening of food policies and contingency plans, the overall momentum to develop the local food sector remains limited. Notwithstanding the challenging business environment resulting from these global disruptions, efforts to invigorate and sustain the local food industry have been, in part, inhibited by a combination of policy overemphasis on scaling up the agricultural technology (agritech) industry and stumbling consumer demand for local produce, a byproduct of Singapore's successful food import diversification strategy.

These factors also partly explain the slow progress of Singapore's "30 by 30" vision, which has faced [several setbacks](#) and [increasing scrutiny](#) in Parliament as it reaches its five-year milestone. While agritech-focused funding aligns with broader goals of building local resilience and fostering growth through support for startups in technology-enabled farming, it often lacks adequate provisions for longer-term business continuity, undermining potentially sustainable supply solutions. At the same time, as consumers have access to cheaper, more varied import choices to fall back on, there is little incentive to choose local produce, reinforcing the ongoing challenge of weak consumer demand for them.

This is not to suggest that the government should redirect its resources to focus solely on the business continuity of local firms or scale back its diversification efforts; rather, there are opportunities for more calibrated policy incentives better attuned to the immediate operational needs of farms, alongside public messaging and education, to help bridge gaps on both the supply and demand fronts.

Competing Priorities and Misaligned Policy Incentives

Technology is central to Singapore's push for urban solutions – such as smart farming, automation, and IoT-enabled solutions – to overcome its geographical constraints, adapt to demographic changes, and to mitigate the impact of climate change. While this sector has undeniable growth potential, a notable number of “high-tech” farms have shuttered or struggled to break even in recent years because of unsustainable operational costs despite generous government funding.

Local indoor vegetable farm *I.F.F.I.*, backed by a precision engineering firm and equipped with an array of AI-driven and Controlled-environment Agriculture (CEA) solutions, filed for insolvency in November 2023, despite being one of nine recipients of Singapore Food Agency's (SFA) [“30x30” express grant](#).

Earlier this year, the owner of *SG Veg Farms* shared that its application for a technology upscaling fund under the 2021-launched [Agri-food Cluster Transformation \(ACT\) Fund](#) fell short of meeting conditions, which narrowly focused on the adoption of technology and advanced farming systems. Instead, the farm received a smaller productivity payout. Other notable examples of promising ventures that have scaled down or closed in recent years include *VertiVeggies*, *Barramundi Group*, and *Sky Greens*.

A common challenge these farms face is the burden of unsustainable operating costs. Grant payouts, however valuable, fall short of addressing significant post-production overheads such as expensive leasing, labour and utility bills. These costs are compounded by limited or cumbersome access to adjacent technologies and a lack of support for technological localisation – related issues faced particularly by farms engaged in novel food development and production. Additionally, weak consumer demand for local produce remains a persistent hurdle to commercial scalability.

An interplay of all these factors generates competing priorities for farms, forcing them to navigate the immediate need for financial sustainability against longer-term goals of supporting local production. High input costs are often passed down to consumers, or businesses pivot to producing more niche food items with higher profit margins, potentially at the expense of foods that meet the bulk of local demand.

A case in point is *Universal Aquaculture*, a vertical farm that opted to produce vannamei prawns over sea bass, given the challenges of scaling production of the latter and the widespread availability of cheaper import variety. The farm was offered a smaller test-bedding payout of S\$100,000 as prawn farming was not formally categorised as a fundable entity at the time. Similarly, certain types of local produce, such as more affordable Asian leafy greens, which form the bulk of local demand, do not necessarily require high-tech indoor farming methods better suited for growing exotic greens like kale.

While regulations have since expanded in 2020 and government incentives remain abundant (if not underutilised), examples like these highlight a misalignment between existing policy initiatives and the practical needs of farms. A re-evaluation of allocations could prioritise solutions that are not exclusively agritech-focused but instead aimed to reduce production costs or provide broader support for long-term business sustainability, addressing common concerns about breaking even.

Opportunities for Public Messaging and Education

In tandem with policy shifts in government incentives, there are also opportunities to implement public messaging and education to encourage “neutral” consumers to explore or switch to locally produced options.

In June, a CNA-commissioned [survey](#) of 842 Singapore residents found that less than half of respondents preferred locally sourced fresh produce – 42 per cent for vegetables, 33 per cent for seafood, and 48 per cent for eggs. According to SFA, current local vegetable production accounts for a meagre 3.2 per cent of total food consumption, while local seafood makes up just 7.3 per cent.

Many consumers still favour fresh produce of the imported variety, citing lower prices, perceived quality, and greater variety. That said, the survey also revealed a considerable proportion of consumers who were “neutral” about the food source – ranging from 48 to 59 per cent across the three categories – indicating a sizeable demographic that could be encouraged to opt for local produce.

Optimistically, the survey also revealed that a quarter of respondents who preferred to buy local did so in support of Singapore’s food security goals – reflecting growing public awareness of the importance of food security and the desire to contribute to national efforts to strengthen the local food scene.

While lowering prices remains a key driver, with over eight in ten respondents citing it, information on product quality and visibility in supermarkets were factors that closely followed. Public messaging through consumer engagement strategies and awareness campaigns could help to address these gaps.

Efforts are [already underway](#), such as the trial launches of homegrown brands *SG Farmers’ Market* and *The Straits Fish*, supported by the Singapore Agro-Food Enterprises Federation. Additionally, point-of-sale product visibility has been enhanced with prominent “locally grown” displays highlighting the freshness of locally grown vegetables.

These initiatives could be further strengthened through Public-Private Partnerships (PPPs) involving government and industry players to promote local food through events, in-store promotions, and loyalty programmes. Public education could also raise awareness about the impact of consumer choices on the local industry, fostering a deeper appreciation for homegrown produce and encouraging shifts towards it.

Beyond Diversification

While Singapore’s food diversification strategy remains the primary approach,

adjustments can be made to support the local food sector in gradually regaining momentum. These recommendations include aligning governmental incentives more closely to the immediate needs of local upstarts and businesses looking to expand, continuing public messaging through consumer engagement strategies and PPPs, and broader education to boost awareness and demand for local produce.

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