

Sustainability drives food-independence in Singapore

The Green Ink

Aahana K, Krista, Cassie Ng and Qi En conducted a study to explore the efforts made by Singapore to ensure sustainability in terms of food resilience.

Sustainability has become increasingly important in today’s world and in order to maintain food security, Singapore has turned to locally grown food.

The United Nations defines sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainability is crucial as there is a limited amount of resources in the world, which could decline rapidly due to human indifference.

“We cannot escape from the undesirable outcomes of the decisions that we make so we have to play our part to mitigate environmental challenges,” emphasised Jayden Ong, co-lead of SLICE - a company dedicated to the innovation of locally grown foods.

As the demand for more resources exceed the supply from our planet, the rate of depletion of earth’s natural resources has rapidly increased. The rise in climate change also increases the strain on sustainability, especially in terms of food security.

Climate change is increasingly prevalent in people’s lives. A survey conducted by The Green Ink shows that 94.4% of the 124 respondents were aware that it will threaten Singapore’s food supply.

According to the recently released IPCC Report 2021, climate change will only worsen over the next 20 years. Climate change can cause severe changes in temperatures and this may result in floods, droughts or undesirable temperatures for crops. This reduces crop yield and deters the exportation of food in agricultural countries. An article by the Singapore Food Agency in June 2020, ‘Singapore's Food Supply’, stated this would be extremely undesirable for Singapore, which currently imports more than 90% of its food supply.



Fresh, local vegetables grown in Singapore’s farm, sold at supermarkets with red labels to help shoppers identify local produce with greater ease. Taken By Qi En.

Furthermore, the current pandemic plays a part in endangering Singapore’s food security. Jayden explained, “Covid-19 uncovered how heavily dependent Singapore is on the importation of food, causing impending worries of food shortages and more catastrophic events where we may not have food at all.”

An article by SAFEF in July 2020, ‘How Will COVID-19 Impact Singapore’s Food Security’, reported that though it was clarified by the government that Singapore’s food security was not disrupted during the panic buying at the start of the pandemic, there are still long term concerns to consider, such as accessibility to global food sources and the special types of nutrition.

“In some countries, there were labour shortages, lacking people to harvest and maintain the farm,” Jayden said. “Causing a lot of supply chain disruptions and also manpower disruptions in those farms.”



An overview of Punggol Allotment Garden, where gardening plots are lush with a wide variety of plants, including fruits and vegetables. Taken By Qi En.

According to an article by Channel News Asia published in April 2020, ‘COVID-19 pandemic highlights importance of strengthening Singapore's food security, say experts’, Vietnam suspended exports of rice to prioritise their own national food security during Covid-19. Due to the pandemic, Singapore’s international suppliers may face difficulties in exporting their food to other countries. Moreover, the pandemic caused a suspension in flights, resulting in a more expensive cost for shipment of food from some countries, such as chilled pork from Australia.

From an international viewpoint, Jayden explained, “Countries will always look out for their own citizens first. Hence, when there is great tension in the world, where do we get our food?”

According to an article by Singapore Agro-Food Enterprises in June 2020, ‘How Buying Local Produce Supports Singapore’s Future’, local produce travel a shorter distance to supermarkets. This equates to lesser fuel used and wastage in packaging, hence it is more eco-friendly. Therefore, to ensure food security, it is essential to practise sustainability and support more locally grown foods.

In view of this, the government has launched the 30 by 30 plan earlier in 2019, which aims to produce 30% of Singaporeans’ nutritional needs by 2030. Strategies like urban farming - the production of food in highly populated cities by using technology and innovation, need to be implemented.

Jayden explained, “Urban farming is important in terms of food resilience because food is a necessity. Urban farming is able to achieve sustainability with the way we farm, as it is used as a means to grow a large quantity of food without harming the environment and depleting natural resources.”

To maximise our limited land, more of these producers are now applying agriculture technology to increase the production of fresh, nutritious and safe food for the residents of Singapore. Such technology include greenhouse hydroponics, vertical farming and indoor farming.

In hydroponics, Jayden explained that one is able

to control the irrigation, light intensity and temperature of the environment in which the plants grow. According to an article by The Straits Times in May 2019, ‘Singapore's high-tech farms: Sowing the seeds of a farming nation’, ‘growing vertically’ maximises land usage while indoor farming protects crops from weather conditions. Carpark rooftops were also converted into urban farms.

Aside from the incorporation of agricultural technology, the government also promotes the participation of citizens to meet the goal. According to the survey, 70.2% of the respondents were very open to the idea of growing their own food. NParks launched “Gardening with Edibles” in 2020 to encourage indoor farming by distributing seed packets nationwide, and doubling the number of community and allotment gardens for gardening enthusiasts.

Futhermore, the Singapore government has recently introduced the “SG Fresh Produce Logo”. This red logo would be used to label the local produce so that shoppers can easily identify them.

“Support home grown products,” Jayden said. “We can keep depending on overseas produce but you never know when it will stop.”

Living Green Crossword

Down:

1. The part of the plant that undergoes germination.

2. The weather conditions prevailing in an area over a long period of time.

4. Is the practice of cultivating plants and livestock.

Across:

3. An infectious disease prevalent over the entire world eg. Covid 19.

5. Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

6. The process or period of gathering in crops.

7. A process that involves growing plants without soil.