

Singapore's Food Security

1. As a country that imports over 90 percent of our food supply, Singapore is vulnerable to fluctuations in food supply and prices, structural supply-demand imbalances as well as food safety incidences overseas.
2. In maintaining food security, it is important to ensure that everyone in Singapore has access to safe and nutritious food at affordable prices in the short and long term. As the national authority that ensures a resilient supply of safe food, the Agri-Food & Veterinary Authority of Singapore (AVA) reviewed Singapore's Food Security Roadmap in 2012 after wide consultations with industry partners and other government agencies to address food security for Singapore in a holistic manner.
3. Singapore's Food Security Roadmap consists of core, supporting, and enabling strategies. Food source diversification remains a key strategy to bolster supply resilience, along with strategies to offset limitations in diversification, such as local production. Under the roadmap also are various supporting strategies like R&D, food wastage reduction, and enabling strategies such as emergency planning, cross-government coordination as well as communication and public education efforts.

Figure 1. Singapore's Food Security Roadmap



4. To provide for a cross-government approach towards implementing the Food Security Roadmap, an Inter-Ministry Committee on Food Security was set up in

2012. The Committee looks into focus areas such as industry development, food wastage reduction, and R&D.

Source Diversification

5. Source diversification is Singapore's core strategy. Today, Singapore sources food from more than 160 countries. Diversification builds flexibility into our system, by enabling us to tap on other sources quickly even when a key supply source is affected.
6. We work with importers to proactively explore new sources through trade missions. To diversify, we work closely with the industry through various platforms such as business cluster meetings and regular dialogues with members from the industry to share information and to understand their concerns. We also adopt a strategy to maximize safe sources of food supply. To do this, we look toward accrediting viable alternative sources while keeping existing ones open, even in the face of disease or food contamination at source.

Optimising Local Food Production

7. Local production is another core component of Singapore's Food Security Roadmap. However, with land and resource constraints, we work closely with farmers to raise their productivity and intensify the use of limited farmland through adopting technology and automation.
8. To support farmers in boosting their productivity, a S\$63 million (approx. US\$ 45.4 million) Agriculture Productivity Fund was launched in 2014. The aim of the Fund is to help farmers enhance their capabilities and invest in new farming systems, equipment and infrastructure. AVA also helps to provide extension services such as technical assistance and training for farmers, and conducts R&D in partnership with research institutions and the industry. Such work paves the way for new, innovative systems and technologies that can improve our local farm production resilience and productivity.
9. In the face of challenges such as climate change, agricultural practices can transform and become more resilient with the aid of technology and innovation. A more progressive farm sector will also be key to attracting a new generation of "agri-specialists" to write the next chapter in global and regional food security efforts.
10. Singapore is moving in this direction and developing strategies for local farm transformation. Even though the agriculture sector is small in Singapore, Singapore would like to contribute and play our part in global food security. We envision our farms of the future to be high-tech, innovative, highly intensive and productive, able to do more, with less. As an urbanized state, Singapore

promotes the development of urban farming solutions and progressive farming technologies, and sees potential to contribute in this as a “living lab” for food production technologies.

Food wastage reduction

11. Food wastage reduction plays an important role in food security. Reducing food wastage, redistributing unsold/excess food and recycling food waste are important components of our national waste management strategies.
12. To avoid wasting food at the onset, Singapore launched a publicity and outreach programme in Nov 2015 to encourage the adoption of smart food purchase, food preparation and food storage habits by consumers. The programme features distribution of educational materials, community-led initiatives and resource packages for schools.

Other supporting and enabling strategies

13. Singapore works with the industry to conduct public education to promote product substitutes (frozen meat, egg powder and liquid eggs) and local farm produce (eggs, fish and vegetables) to enhance food supply resilience. Raising consumer awareness of food alternatives can help to buffer against supply disruptions, while promotion of local produce will help to sustain local production. This is done through events such as cooking demonstrations at Food Expos, supermarkets and community roadshows, as well as farm tours and cooking classes at community centres.

Food safety

14. Food safety is an integral part of food security. As the national authority for food safety, AVA has an integrated risk-based food safety system in place to ensure that food is safe from production to just before retail. AVA’s Veterinary Public Health Centre was endorsed as Southeast Asia’s first World Organisation for Animal Health (OIE) Collaborating Centre for Food Safety in 2014 and supports our food safety programmes. With food safety as a shared responsibility, AVA actively engages industry and consumers in food safety standards and practices across the food chain.
