



ESSAY

Town Planning and Food Accessibility in Singapore

It's No Mirage, It's A Food Oasis!

Access to fresh produce and other nourishing food can often be limited geographically in cities and can disadvantage some social groups. CLC Researcher **Thinesh Kumar** explains how good town planning prevents the formation of such “food deserts” in Singapore, with the integration of supermarkets, markets and hawker centres in the development of new housing towns.

With the advent of climate change, urbanisation and increasing demand for meat-based diets, food security and resilience have become key concerns globally in the last few decades. Beyond the supply and demand of food, access to food has emerged as a significant issue.

One particular phenomenon has been the formation of food deserts in some cities. Food deserts refer to neighbourhoods or communities where residential populations lack access to fresh, nutritious and affordable produce. This could be due to a lack of proximity to shops and markets, limited transportation links, or even lifestyle or cultural factors such as a preference for convenient processed or fast foods.

This problem is not limited to developing countries. Research shows that food deserts have appeared in low-income areas of certain cities in the United Kingdom and the United States. While limited accessibility to food supply could contribute to food insecurity, food deserts have been on the radar of researchers mainly because of their adverse impact on nutrition. Food deserts epitomise how complex issues of health inequality, undernutrition, social exclusion and differential access to amenities can overlap, making it both a social and planning challenge for policymakers.



Thinesh Kumar is a researcher at the Centre for Liveable Cities and the co-author of *Food and the City: Overcoming Challenges for Food Security* (Centre for Liveable Cities, 2016).

Fishmongers at the Marine Parade Market and Hawker Centre supply local residents with fresh and affordable seafood.



Singapore, A Food Oasis

Despite being a city-state that imports 90% of its food, Singapore has been relatively food secure, topping the Global Food Security Index in 2018. Guided by a Food Security Roadmap overseen by the Agri-Food and Veterinary Authority (AVA), Singapore has worked to diversify its food sources. Over the years, it has securitised its food supply as its dependence on imports increased, in order to mitigate potential supply disruptions. This became especially important after the global food crisis of 2008, when prices of staple foods soared worldwide. To prevent history from repeating itself, key food items were sourced from different geographical regions. Today, less than 50% of Singapore's needs for most key food items are imported from any one country.

Sourcing for food at competitive prices from all over world, Singapore spreads the risk of shortages, shoring up its food system against global price fluctuations. Although the city-state's government does not interfere with the market pricing of food, it does offer welfare measures, such as food vouchers, to ensure that low-income groups can afford food.

Food deserts in the conventional sense do not exist in Singapore. In particular, Singapore's holistic town planning framework has prevented the formation of these spaces of exclusion, by ensuring the availability of food sources such as supermarkets, wet markets and hawker centres in its residential towns. This gives Singaporeans from all walks of life ready access to fresh and safe produce and affordable, safe cooked food. Over 85% of Singapore's populace live in these self-contained public housing towns, which are well-provisioned with facilities and

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amenities at both the town centre and local neighbourhood levels. The result: not food deserts, but food oases.

Town Planning and Food Accessibility

Itinerant hawkers and street peddlers were once common on Singapore's streets. By 1966, it was estimated that there were some 40,000 of them in the city, both licensed and unlicensed. They were an important means of livelihood for many, and made cheap food and produce available to city residents. However, a burgeoning population brought concerns over traffic obstruction and unsanitary conditions. From the 1960s to 1980s, hawkers islandwide were registered, and eventually relocated into purpose-built markets and hawker centres. These were sited near both places of employment (such as industrial estates) and residential areas—where they continue to cater to food demand from local workers and residents to this day.

With the 1971 Concept Plan seeking to shift the population away from the city centre, Singapore came to develop self-contained housing estate towns, each big enough to sustain its own commercial, institutional and recreational facilities. As part of this effort, hawker centres (selling cooked food) and wet markets (selling produce) were constructed—often as a single structure—in the new housing estates, within walking distance

01 A dry goods stall at the Marine Parade Market and Hawker Centre.

02 Fresh fruit can be bought at this stall in the Bugis Street market as late at 9pm.



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of residents. These centres were usually built and owned by the Housing and Development Board (HDB) as part of the development of new towns. They were managed by the Ministry of Environment—and later by the National Environment Agency (NEA).

As a rule of thumb, each new town had at least one hawker centre and wet market, with these numbers increasing depending on population size. HDB guidelines stipulated that market and hawker centres were to be provided for every 4,000 to 6,000 units of flats in most public housing estates. Small provision shops, relocated from kampongs to the ground floors of housing flats, would provide food as well as daily necessities for the community. The new towns were also designed to allow for a variety of retail outlets including pop-up convenience stores, supermarkets and dry grocery shops in the town and neighbourhood centres—ensuring convenient access to food throughout each housing estate and making the new towns liveable and convenient.

As of 2018, there are 104 wet markets and hawker centres managed by NEA, with plans to build 20 more hawker centres and wet markets.

Building a Food Oasis

Hawkers centres have become a mainstay in Singapore's urban landscape, offering a variety of cooked fare at affordable prices islandwide, and preserving Singapore's distinctive food heritage. Moreover, hawker centres are designed to be inclusive spaces, reflecting the multicultural makeup of Singapore by ensuring that a variety of food types is provided. For example, each hawker centre has a set number of stalls offering Malay and Indian food alongside Chinese cuisine. Provisions have also been made to ensure that cutlery for halal and non-halal food stalls are separated.

While the initial planning of physical infrastructure for hawker centres played a crucial role in enabling access, they have also continued to be maintained and developed to meet evolving needs.

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01 A street in Chinatown in the 1970s, congested with street hawkers and peddlers.

02 Affordable prices at hawker centres allow people to have meals out regularly.



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In 2001, the Hawker Centre Upgrading Programme (HUP) was introduced to upgrade the conditions and facilities of aging hawker centres. These included such works as retailing and reroofing, upgrading wiring, plumbing and ventilation, and improving tables and seats to make dining more comfortable. Moreover, recent upgrading work has seen the improvement of wheelchair access with the table designs being tweaked to allow wheelchair bound people to dine comfortably at hawker centres. By 2013, 106 hawker centres had been refurbished under the HUP.

With Singaporeans spending an average of 37% of their food budget on hawker fare, these hawker centres have become convenient primary sources of food. This is particularly significant for lower-income groups, underlining the need to keep hawker centre food prices affordable. The Singapore government does this by ensuring that stalls are personally operated and not sublet, and by abolishing the practice of reserve rent to keep stall rental costs down. Today, a full meal at a hawker centre stall typically costs S\$3 to S\$6.



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Wet markets follow the same principles, providing fresh produce at affordable prices. Even with the phasing out of the live slaughter of poultry at wet markets, these market centres have remained relevant as a key source of safe produce for sale. The Cold Chain System was introduced in 1999; it requires meat to be kept chilled throughout the entire preparation process, ensuring the safety of meat sold in wet markets.

The Way Forward

Singapore has done well in developing its urban environment while ensuring that its people continue to enjoy ready access to food. Even as new towns were built away from the city centre, no food deserts formed. Adaptability is key, with the government continuously evolving its policies and programmes to suit the changing food needs of the people. More recent initiatives have even addressed the nutritional value of available food, by promoting healthier food options in hawker centres to help address the prevalence of lifestyle-related conditions such as obesity and diabetes.



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However, physical access to food is only part of the story. While successful town planning policy has ensured that food deserts have not formed in Singapore, there is a need to acknowledge that access to food could still remain a challenge for some communities.

Despite a ready supply of produce or cooked food options available, some groups such as the elderly or low income households may still be affected by such factors as physical constraints or the rising cost of food. Currently, welfare measures are in place to help vulnerable groups afford food. Lower-income groups—who spend a larger proportion of their income on food and

may thus be affected by the volatility of food spikes—are given government assistance in the form of supermarket vouchers. In 2012, the NTUC FairPrice Foundation handed out approximately S\$1 million worth of food vouchers to 20,000 low income families and individuals.

Singapore has done much at the national and local levels to ensure that good food sources are readily accessible, available and affordable. To keep Singapore a food oasis, it will be important to be vigilant about how food deserts could emerge in new and different forms in future. 🍌

01 Toa Payoh town centre houses eateries, provision shops and supermarkets within easy access to residential areas.

02 From young to old, the hawker centre caters to different dietary needs and socioeconomic groups.

03 Fresh meat, fish and vegetables are on display at bustling Tekka Market.