



CASE STUDY

Singapore | Citizen Farm

Farming for the Common Good

A passionate, ground-up group of urban farmers have jumpstarted a new model of community farming with a social mission—in the heart of Singapore’s densely built-up cityscape.

Challenge

It is easy to take food for granted in Singapore, where food is readily available 24 hours a day, seven days a week. Yet a staggering 90% of Singapore’s food is imported, and food choices are largely constrained and influenced by market supply.

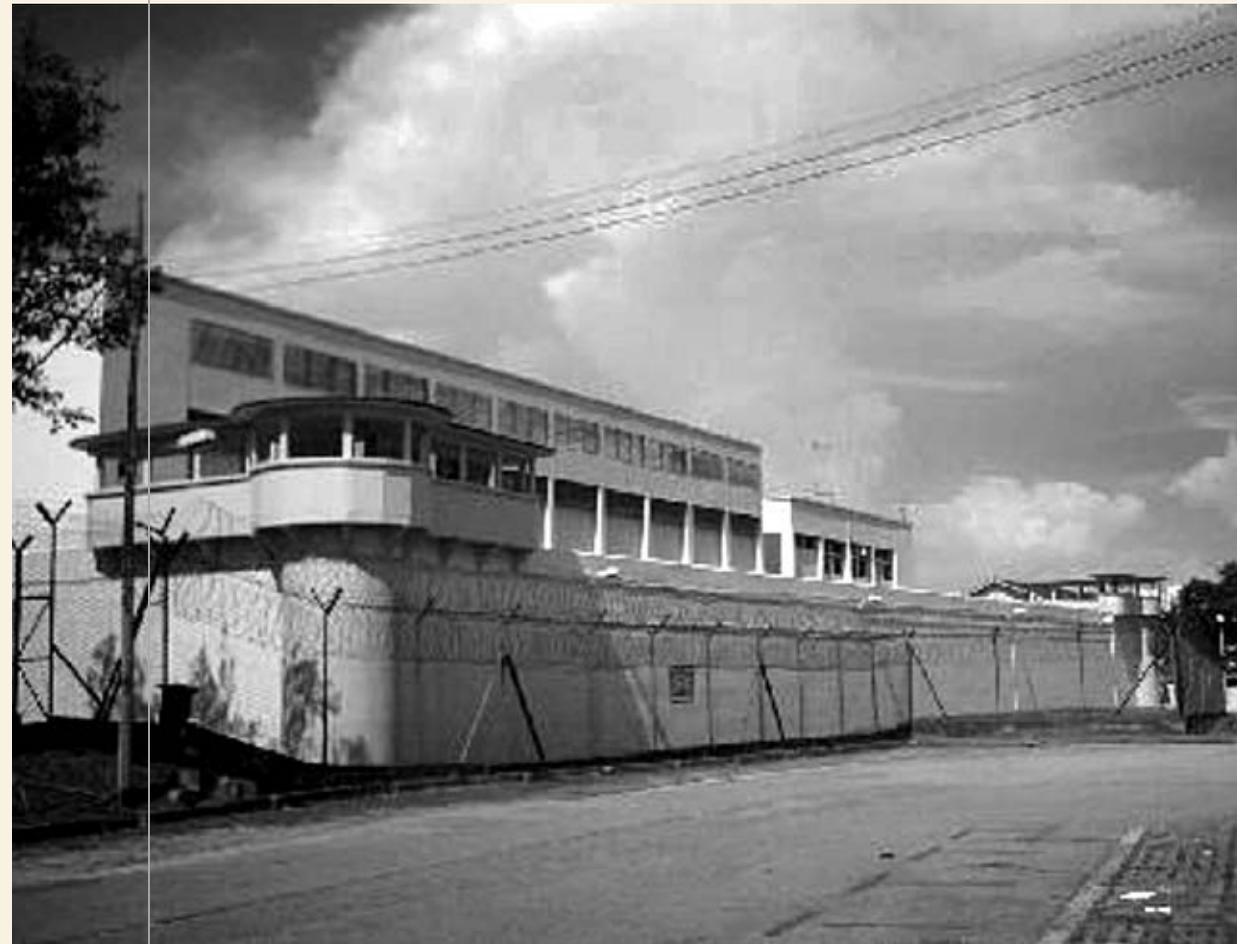
A growing number of urban farmers in Singapore are exploring ways to increase domestic production to supplement food imports. They want to produce what is good for consumers, instead of what is merely good for trade. They also believe that the process of growing food can be made more inclusive.

To pursue these goals, Edible Garden City was set up in 2012, with the aim to use edible gardens for residential, educational and recreational purposes. As it gained traction, it sought to have its own farm. A farm would not only provide fresh produce daily, but bring the community together, provide access to nature, allow people to learn about food sources and offer respite from urban sprawl.

However, few in Singapore knew how to design, build and operate an urban farm. The high cost of manpower in Singapore also meant a thin profit margin for small-scale farmers, making it hard for urban farms to be viable. A lack of space and complex regulatory rules relating to land use also made it difficult to find a suitable place for the farm in the city.



Darren Ho is the Head and co-founder of Citizen Farm.



After being demolished in 2010, the land that used to house the Queenstown Remand Prison lay unused.





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The Solution

An interagency urban farming task force, led by the Ministry of National Development, was set up to study how technological innovation has improved the viability of domestic food production, especially in limited land space, and how regulations could encourage more urban farming. Working together, stakeholders such as the Edible Garden City and the task force identified factors that obstructed the growth of urban farming. For example, existing regulations had not kept pace with technology and the economy. Traditional farms needed long leases to be viable, while modern farming systems, enabled by technology, could now be portable, allowing some flexibility in where they can be set up. In addition, urban farming as a social enterprise, which combined land uses, had not been accounted for.

“Waste from the flies is used as fertiliser for the farm’s other crops, creating a closed loop.”

There were no sites that permitted urban farming for social purposes—land use for farming purposes is restricted, while land set aside for community purposes (e.g. a park or a community centre) is limited to specific uses which did not include farming.

The task force helped Edible Garden City navigate the regulations to set up an urban farm in Singapore. It played a crucial role in persuading government agencies to allow unutilised spaces for community farming and commercial farming on short leases.



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The task force identified an unused plot of land in the housing estate of Queenstown, and worked with the Singapore Land Authority for leasing of the land, and with the Agri-Food & Veterinary Authority of Singapore for regulating agriculture produce.

With this help, Edible Garden City managed to site its new farm. The site, a former prison, was ideal as the land was disused, yet it was close to the city centre as well as to residents with a diverse range of backgrounds: local and foreign, young and old. Their farm initiative and social enterprise, Citizen Farm, officially opened in June 2017.

Darren Ho, Citizen Farm’s head, had worked in various farms in Australia. Bringing his experience to bear, Citizen Farm started out by growing a combination of crops that were healthy, high in value and easy to grow. The farm was also designed to be a closed-loop setup that integrates natural systems with modern technology. Citizen Farm features Singapore’s first urban black soldier fly farm, which can process food waste up to four times their weight a day. Because of this, the farm does not require any external energy to process organic material. Waste from the flies is used as fertiliser for the farm’s other crops, creating a closed loop. Citizen Farm also incorporates elements of agro-tourism and education. Workshops and farm tours are held regularly for schools, corporations and other interest groups to raise awareness about urban farming.

01 Black Soldier Fly larvae break down waste into fertiliser, and allow Citizen Farm to close its production loop.

02 A farm that could grow different species for food and connect people to nature was envisioned.

“More young graduates have also been attracted to urban farming, despite the reputation of farming as a sunset industry.”



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The Outcome

Today, Citizen Farm grows up to 20 varieties of pesticide-free leafy salad greens, microgreens, edible flowers and mushrooms. The farm produces 50–80 kg of produce monthly, some of which is used in 50 restaurants island-wide, including Michelin-star restaurants run by world-renowned chefs. It is also host to an indoor hydroponics and aquaponics farm.

Further introducing people to local produce, the farm also feeds 50 families weekly with their community-supported vegetable box. This “Citizen Box” comes as an eight or twelve-week subscription of fresh produce.

Over the past two years, the farm has grown from five to 20 farmers, 10 of whom are individuals with special needs. The farm collaborates with organisations such as the Autism Resource Centre, Employment for People with Intellectual Disabilities and the Singapore Prison Service to equip people with autism,

mental disabilities, as well as inmates, with farming skills. More young graduates have also been attracted to urban farming, despite the reputation of farming as a sunset industry. To date, Citizen Farm has about 40 staff who are aged 22–65, with nine fresh graduates joining in 2018 alone.

The social entrepreneurship of a group of passionate urban farmers, supported by a responsive government task force, has opened doors for innovative new business models, and put Singapore on the path to growing a viable urban farming community in the city. Citizen Farm’s success showcases the potential of harnessing underused, marginal land for temporary use. These farming models are designed to be mobile and easily adapted to various spaces. Such setups supplement local food production, provide much-needed space for start-ups to explore agrotechnology innovations, and offer a much-needed platform to activate communities and get people involved. 📍

01 Citizen Farm officially opened in June 2017.

02 Tours and workshops for visitors such as this foreign minister from India are regularly held at the farm.



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