

Educating the Young: New Leaders in Environmental Action

Text and images by Edible Garden City





By equipping young people with the necessary skills and inculcating the caring values in them, not only will they go on to develop further in a personal capacity, they would also be able to shape society and create impactful climate policies in the future.

Young people can be the catalyst for change. This has been happening around the world. Youths are rising up to become role models and leading movements surrounding key issues like climate change and gun control. In fact, a United Nations Environment Programme survey stated that 89% of youth respondents say young people can make a difference on climate change¹.

Food security, waste management and environmental sustainability are topics that we need our future generations to understand deeply and passionately. Nature also provides great context for learning about science, geography, mathematics and even life skills.

Edible Garden City believes in the important role of young people in saving the environment, and contributing to food resilience in Singapore. The social enterprise has been dedicated to equipping our next generation with the right skills, tools and values to make a positive impact on these pertinent issues.

Schools more invested in climate education

According to Singapore's 2019 population figures, about 1/5 of our population is below 20 years old². Of this group, about half are enrolled in Ministry of Education schools (Primary, Secondary and Tertiary)³.

The Singapore Ministry of Education has also recognized the importance of climate education in schools. In October 2019, Education Minister Mr Ong Ye Kung shared in a Facebook post⁴ that environmental education is already a part of the curriculum for all levels – primary to junior college. He said: "It is far more meaningful to embed these lessons into existing school subjects and activities,

and inculcate in students good habits, such as reducing the use of air-con or devices, minimising wastage, saving water, to do our part for the environment."

Bringing Biodiversity into Schools with Edible Gardens

The company's schools outreach is supported by two pillars – edible landscaping and education. Firstly, its farmers design, build and maintain edible gardens in tropical urban Singapore, many of which are located within restaurants, hotels, schools and residences. Since 2012, Edible Garden City has completed 200 edible gardens, some of which are in schools like Canossian School, Montfort Secondary School, Pathlight School, Spectra Secondary School and Blangah Rise Primary School.

All the gardens are designed with the target audience in mind. For schools, the goal is to make the space relatable and intriguing for the children, to spark their interest in learning. Hence, its farmers often plant more familiar fruiting varieties, and incorporate areas where outdoor classes or hands-on activities can be conducted.

On top of incorporating climate education, more schools have also asked Edible Garden City to explore building more farms in under-utilised spaces within their compounds. Beyond just having these productive spaces become outdoor classrooms, Edible Garden City is also considering the possibility of these school-based farms to be quasi-commercial. This would marry food production and sustainable education, as well as teach skills like business and marketing. The

1. School children learn about herbs like mint and rosemary by using all their senses. Edible Garden City's trainers guide them in harvesting, tasting, touching and smelling the herbs, to encourage the children to expand their palates.



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social enterprise is currently in talks of exploring this model with a few schools. Where successful, it could be implemented in an expanded capacity.

Farm Tours and Enrichment Workshops

Secondly, many schools choose to engage the students, through long-term or ad hoc educational programmes. Edible Garden City aims to bring nature and environmental education beyond the classroom and into the outdoors, and to involve more hands-on learning, on top of theory teaching. It has also seen an upward trend in its uptake of nature-based environmental education. In 2019, the organisation worked with 45 schools to educate 2600 primary to junior college students about urban farming in Singapore, food resilience and basic farming skills. This represented a 50% increase from the previous year, when it worked with 30 schools, or about 1000 students, in 2018.

Edible Garden City's trainers are able to design an urban farming curriculum that encompasses skills- and values-based learning, that is customized to the school's specified learning objectives. Many schools with garden builds choose this to teach students to upkeep the built gardens. Others also engage Edible Garden City's trainers, when they want to incorporate nature learning into lessons.

"All our education programmes are customised according to learning objectives, and we have found that more and more schools are requesting for our educators to incorporate food resilience and food sustainability messages, and environment-related lessons into our programmes," said the company's spokesperson. She added that this is on top of common requests like encouraging

innovation, or linking urban farming and biodiversity to subjects like science and geography.

In addition, all its workshops have a hands-on portion and a take home item for participants to carry on good habits at home. For instance, participants of the gardening basics workshop try their hand at stem cutting and propagation during the class, and get to bring home a plant that they can use to kickstart a lifelong gardening habit.

A Safe and Engaging Space To Learn

Edible Garden City's main production farm located on the site of the old Queenstown Remand Prison gives students an immersive and safe space to learn about urban farming and biodiversity. The lush and colourful landscape intrigues and encourages exploration, all set against the backdrop of Housing & Development Board flats, that sets the context of farming in our densely-populated city. This is a reminder of national security issues like food sustainability and food resilience, and engages students in a problem-solving capacity: how do we grow enough food to feed Singaporeans, with little land.

The farm is also the setting for the social enterprise's school holiday programme, the Junior Urban Farmer Camps and Workshops. Over the past 3 years, its trainers have conducted five such sessions for children aged 12 and below. The children take part in planting and composting activities, farm-to-table cooking and nature art classes. These Junior Urban Farmer courses are aimed at helping children become more comfortable in nature, and to become develop confidence with gardening skills, communication skills and creative expression.



Empowering our Youngest

Besides school-going students, Edible Garden City also actively engages pre-school children. For every 10 school groups that the company educates, roughly one is a pre-school or is targeted at pre-school aged children.

For this age group of 2 to 6 years old, its trainers use nature as the context for learning basic skills like numerology, language and social skills. The children are also encouraged to explore the spaces around them, and to find comfort outside of their comfort zone. Edible Garden City's hope is that this will inculcate a love and appreciation for nature from an early age, forming the basis of good habits like conscious consumption and when they are adults.

Positive Effects of Nature-based Education

Edible Garden City's trainers have found that children who have regular sessions in the outdoor garden or doing gardening have shown some positive change in behavior with regards to the environment. For instance, most do not realise the amount of time and effort that is taken to grow vegetables that they eat. After taking a tour of the farm, and understanding that it could take months to grow a head of lettuce, they are more conscious of wastage and become less picky eaters.

For instance, when Edible Garden City was appointed to teach gardening to pre-schoolers over the course of 10 sessions, for 20 children. The kids were shy at first, and so trainers paired them up and encouraged teamwork and learning together. Over the course of the weeks, the students became less squeamish about soil and dirt, and were even comfortable touching insects. By the end of the

course, they were not only very comfortable and confident in the outdoor garden, they were also knowledgeable enough to voice suggestions on how the processes could be completed. Due to the success of the programme, Edible Garden City is now on its third year of partnership with the school. Other observations trainers have found include:

- Children like to forage and to find food in unexpected places. When given the opportunity, they are excited to pluck food directly off the plant. This is despite many being taught to be cautious of nature, insects and dirt in particular.
- They love to help in the kitchen, and letting them get involved in the food preparation process motivates them to eat out of their comfort zones.

Future-proofing

In Prime Minister Lee Hsien Loong's 2019 National Day Rally speech, he referred to climate change as one of the "gravest challenges facing mankind" warning that "Singapore is already feeling the impact" of climate change⁵.

The Singapore education system has been key to the success of the nation. Hence, in order to fight against climate change, it is incredibly important to prepare our young to receive the baton. Edible Garden City's hope is that by equipping young people with the necessary skills and inculcating the caring values in them, that not only will they go on to develop further in a personal capacity (through fulfilling hobbies and leading healthy lifestyles), they would also be able to shape society and create impactful climate policies in the future; that they would hurdle through obstacles, baton in hand. 

References

- 1 <https://www.un.org/youthenvoy/environment-climate-change/>
- 2 <https://www.singstat.gov.sg/find-data/search-by-theme/population/population-and-population-structure/latest-data>
- 3 https://www.moe.gov.sg/docs/default-source/document/publications/education-statistics-digest/esd_2019.pdf
- 4 <https://www.facebook.com/ongyekung/photos/a.920603904620879/2960324567315459/?type=3&theater>
- 5 <https://www.channelnewsasia.com/news/singapore/ndr-2019-climate-change-impact-singapore-greatest-threat-sea-11819382>

2. A before and after view of the garden at Canossian School. Edible Garden City farmers help to build and maintain edible gardens in schools, that also double up as interactive outdoor classrooms.

3. [Left] A participant in the Junior Urban Farmer Programme waters her plant in the self-watering planter she just made, out of an old plastic bottle. Encouraging eco-friendliness is a key component of all of Edible Garden City's workshops. [Right] Children in the Junior Urban Farmer Programme learn how to garden in a hands-on session at Edible Garden City's Queenstown Farm. The programme is held every school holiday, and aims to help kids discover a love for nature.