

ELABORATED BY:



Green Innovation Center

PROJECT IMPACT REPORT

2023



Our Cosy Garden is....
... upgrading, innovating and redefining
community action and collaboration.

The Green Innovation Centre, an example of business and community partnerships for a more sustainable future. Coming soon!





Table of Contents

	Page
GIC @ Cosy Garden	1-2
Areas of Impact	3
01 Garden visit engagement	4
02 Impact from Sustainable Features	5 - 12
03 Impact from Activities	13 - 18
04 Recycling Drives	19
05 Enabling Collaborations	19
Awards & Recognitions	20
Conclusions & Recommendations	21 - 22
List of partners	23
Appendix A & B - proposals for future activities	24 - 27



GIC initiative @ Cosy Garden

The Swedish Chamber of Commerce has long championed the strong commitment to sustainability exhibited by its member companies. These companies are actively contributing to various facets of Singapore's green transition through their expertise, products, and services. However, we believe that only focusing on the green transition from a business perspective is not enough. For a complete green transition of our society to happen, we need to forge new, innovative partnerships across private, public and civil sectors. We all need to work together to implement SG Green Plan - not just top down, but also bottom up, supporting and advancing a shift in mindsets across the society.

To lead the way, SwedCham embarked on a project four years ago where we linked arm with a garden community in Bukit Batok (Cosy Garden), a local authority (South West CDC) as well as Bukit Batok's Grassroot Organisations to launch a unique collaborative initiative, sponsored by 13 Swedish MNCs: The Green Innovation Centre (GIC).



Based on a collaborative bottom-up approach, the project, which was launched on 8 June 2023, aims to support the local community in exploring a sustainable urban lifestyle with knowledge, solutions and services around the 3Rs (Reduce, Reuse & Recycle) and green living (gardening and connecting with nature).

The project focuses on two of the key pillars of SG Green Plan 2030:

CITY IN NATURE

SUSTAINABLE LIVING



GIC initiative @ Cosy Garden



SwedCham's team has partnered with schools, sustainability-focused local SMEs and resident volunteers to create a hub at the Cosy Garden, which has been lovingly built by local volunteers over the past decade, where people of all ages can meet and learn about sustainable urban living.

In addition, an important component of this initiative was also to create a local showcase of smart digital solutions. Digitalisation goes very much hand in hand with the green transition, and, for this reason, it is important that we interact with the civil society to help everyone understand why SG Green Plan and the Singapore Smart Nation initiative are two levers which both drive sustainability.



MEDIA COVER

GREEN INNOVATION CENTER LAUNCH MOVIE

SINGAPORE GLOBAL NETWORK ARTICLE

Areas of impact

The project was born and built on the wish to make a difference and create impact together. This is what makes the Green Innovation Center unique. Many different groups in the community, which normally don't find a forum to co-create, came together with the enthusiasm to contribute and learn from each other.

Tulyā Pte Ltd has supported the Green Innovation Center with the impact measurement to estimate and communicate the project's contribution to Singapore and its Green Plan 2030.



The purpose of this report is to highlight the environmental and social impact achieved so far, and to make suggestions for further impact. Five main impact categories were defined at the beginning of the project and outlined in this report:



- 01 GARDEN VISIT ENGAGEMENT
- 02 IMPACT FROM SUSTAINABLE FEATURES
- 03 IMPACT FROM ACTIVITIES
- 04 RECYCLING DRIVES
- 05 ENABELING COLLABORATIONS

01 Garden visit engagement

SELF-GUIDED OR DIGITAL TOUR @ COSY GARDEN

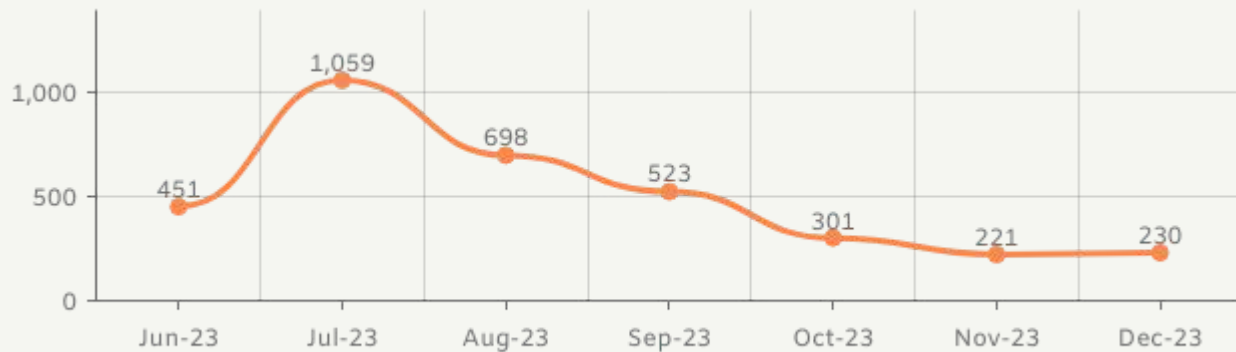
Partners: susGain, students from Butik Batok Secondary School & Queenstown Secondary School

One of the main goals for the project was to make Cosy Garden even more accessible to citizens of all ages and create a space where people could meet, be close to nature, and learn about sustainability. The garden community was excited to convert their garden into a showcase for sustainable solutions and open it even further to schools, kindergartens, senior citizens, and other community groups to make an impact in society and contribute to awareness building.

This ambition resulted in 10 green solutions that can be explored through a self-guided tour in the garden or virtually through the GIC digital explorer trail hosted by susGain, an engagement app to drive sustainability in the community. Students created videos explaining the importance and function of each solution and why the solution is important to Singapore's Green Plan. By watching all the videos and answering the questions in the quiz, the user completes the "challenge" which contributes to removing trash from Singapore's coastline by AllClear, a local NGO, financed by the GIC initiative.

IMPACT

Number of activities done per month
(videos watched)



Total challenges completed
(all 10 videos watched and quiz completed)

Waste removed from coastal line
by All Clear

02 Impact from sustainable features

The garden community was excited to convert their garden into a showcase for sustainable solutions and open it further to schools, kindergartens, senior centers and other community groups to make an impact in the society and contribute to awareness building.

Cosy Garden was created with a regenerative mindset already from start, long before the Green Innovation Center project. Almost everything you can find here has been given a second life and the plants are based on propagation and regeneration. Hydroponics, composting, and continuous green initiatives are the heart and soul of this garden community.

For more information about the sustainable solutions: <https://www.dilucidar.com/gic>



NET-ZERO OUTDOOR LIVING ROOM

Partners: reXtore & Tetra Pak

An Outdoor Living Room was a central idea of the project since start. It is meant to be a space for the community to participate in green activities and to make the garden more accessible for people to be closer to the nature.

IMPACT

reXtore has mastered the art of creating waste-free net zero structures. In this particular project, discarded scaffolding poles obtained from a construction company made the structure. By repurposing these used scaffolding poles, we gave them a new lease on life.

To further enhance sustainability, the structure incorporates PolyAl roof sheets made from recycled Tetra Pak beverage cartons and a rainwater guttering system, enabling the harvesting of rainwater. This approach ensures efficient resource utilization and minimizes environmental impact. In addition to the structural elements, reXtore assisted in sourcing second-hand furniture, providing an extended lifespan for these items and offering gardeners a chance to enjoy them.

As a result, the Outdoor Living Room boasts an exceptionally low carbon footprint, and generated no waste during construction.

SG Green Plan: Singapore aims to be a zero waste nation powered by a circular economy, with a high rate of recycling so that precious resources can be used many times over.



THERAPEUTIC GARDEN

Partner: Hortherapeutics

The therapeutic garden is strategically located within the Cosy Garden area to tap on the vibrant community of gardeners there, encouraging positive interaction with fellow residents and caregivers, hence reducing isolation and increase a sense of community and purpose. The idea of creating a therapeutic garden as part of the project was important to the Cosy Garden Community to make it more inclusive for people with special needs.

IMPACT

Being in a therapeutic garden can help to promote physical and mental well-being to people. A well-designed therapeutic garden also promotes safe movement for seniors, by reducing sedentary lifestyle through walking and gardening activities. Culturally relatable fragrance plants among other sensory plants are planted in the therapeutic garden. Smell is one of the strongest senses that can trigger emotions and long-term memories for people in the early stages of dementia.

SG Green Plan: By 2030, 30 therapeutic gardens will be built across Singapore to offer restorative spaces for people with conditions such as ADHD and dementia.



AN INCLUSIVE & ACCESSIBLE GARDEN

Partners: Pan-United, Tetra Pak & Len Meng Engineering

To make the Cosy Garden more accessible for the elderly and physically impaired, the old slippery tiles had to be replaced with wider and safer pathways. Pan-United's carbon mineralized concrete was the chosen solution as it met the requirements from a durability, safety, and sustainability perspective.

It is estimated that 1 m³ of Pan-United's CO₂ mineralised concrete can reduce cement use by between 3-7%, while strengthening the concrete at the same time. With every 1 m³ of concrete produced, up to 20 kg of CO₂ on average is prevented from entering the atmosphere.

Portable planter boxes made from recycled Tetra Pak beverages cartons and movable trolleys were built by Len Meng Engineering to fit gardening activities for children as well as people in wheelchair.

IMPACT



SOLAR-DRIVEN ENERGY LOOP

Partners: Nöjdhs Technologies, ABB and 10 Degree Solar

Installing renewable energy systems is critical for countries to reduce greenhouse gas emissions and reach the Paris Agreement's target to limit global warming. For Singapore, solar power is one of the most promising renewable energy sources. Within the GIC initiative, the companies collaborated to create a solar-driven energy loop, showcasing how renewable energy works and at the same time replacing the garden's usage of energy from the grid.

IMPACT

An estimated 305 kg of CO₂ has been avoided from June to December 2023 thanks to the solar panels. When there is a shortage of sunlight, the batteries will be charged from the power grid. The switch of the electricity supply between the solar panels and the power grid is monitored in real-time and controlled smartly to maximize the energy usage of solar power and minimize the dependency on the power grid. In case of a grid power supply failure, the battery storage system acts as the uninterrupted power supply to keep the essential load (such as the koi fish!) operational for more than 12 hours. To extend the battery backup time, the ABB monitoring relay will disconnect the non-essential load until the grid power supply is back and trigger an alarm to the garden team through the Axis and Securitas monitoring system being installed in the garden.

SG Green Plan: Singapore has set a goal to increase usage of renewable solar energy fivefold to at least 2 gigawatt peak by 2030.



SMART SECURITY SOLUTIONS

Partners: Axis Communications & Securitas

Singapore has set its sights on becoming a Smart Nation harnessing technology to transform how people live, work, and play. The involved companies have created a showcase to show how a local community can benefit from technology as part of a Digital Society driving smart adoption of technology and make digital services accessible to everyone in the community while at the same time focusing on sustainable living.

The security solutions, which all can be controlled remotely, showcase how Singapore is moving towards a smart nation and that digitalisation is also an important driver to build a sustainable society.

Singapore Smart Nation: Technology-driven sustainability solutions are part of Singapore's vision for digitalisation and building a smart nation to transform health, transport, urban living, government services and businesses.

IMPACT



RAINWATER HARVESTING SYSTEM

Partners: Hydrodynamics

A rainwater harvesting system was installed to reduce the fresh water used for irrigation and support the vision of the government for water sustainability in Singapore.

SG Green Plan: Singapore's target is to reduce household water consumption from 141 litres today to 130 litres per capita per day in 2030.

IMPACT

The integration of the rainwater collected from the recycled PolyAl sloping roof from the outdoor living room leading to the tank was successful and has captured 25 m³ of water from the project start and will continue to save about 50 m³ of freshwater (50,000 litres) per year.



HYDROPONICS & COMPOSTING

Partners: Cosy Garden community

A hydroponic system was created by Cosy Garden in 2020 to grow leafy vegetables and share learnings in the community and a new compost (type) was built by Cosy Garden 2022.

SG Green Plan: Singapore aims to build up its capacity to produce 30% of its nutritional needs locally and sustainably by 2030.

IMPACT

Hydroponic farming uses up to 98% less water than traditional soil-grown plants and the growth rate for a hydroponic plant is 30-50% faster than traditional soil-grown.

Cosy Garden has become self-sufficient in fertilizers thanks to the new compost.



03 Impact from GIC community activities



Two working groups consisting of several multinational companies, secondary schools, universities, community groups, and Bukit Batok PA, were created to decide in a bottom-up process what kind of community activities to focus on.

The **"City in Nature"** focus group elaborated on ideas for activities taking place in Cosy Garden to make it more accessible for people to be close to nature.

All ideas listed in Appendix A



The other group, **"Sustainable Living"**, identified areas where the project could contribute to create awareness and find solutions to everyday chores and actions with a negative impact on the environment and society.

All ideas listed in Appendix B



CITY IN NATURE ACTIVITIES

PRE LAUNCH: Atlas Copco did the planting for the therapeutic garden, Hexagon cut branches to clear for the solar panels and Bukit Batok Secondary School & Queenstown Secondary School created videos for the garden tour



19 AUG 2023: AstraZeneca and its Cancer Can Give community (cancer survivors) learned about nature's impact on mental health and how to do gardening at home, together with Cosy Garden volunteers and NPark.

LINKEDIN OUTREACH

FOLLOW UP EVENT POST

26 AUG 2023: A family day for sponsor companies was arranged with around 100 people joining to experience the GIC. Cosy Garden volunteers shared their knowledge about traditional gardening, hydroponic gardening, composting and how this city oasis came about a decade ago. The sponsors showcased their solutions and children participated in an upcycling workshop and experienced the digital explorer trail.



LINKEDIN OUTREACH

INVITATION POST



27 JULY 2023: Botanica World Discoveries from Australia & New Zealand visit and guided tour in Cosy Garden for 40 people.

Apart from many other ad hoc activities arranged by the Cosy Garden community, they have regular visits from kindergartens 3-4 days per week and twice a month a 2-hours therapeutic gardening session is arranged for six participants from the daycare center "New Horizon Center".

SUSTAINABLE LIVING ACTIVITIES



LINKEDIN OUTREACH

- PRE-LAUNCH POST LAUNCH DAY POST
- LAUNCH VIDEO 1 LAUNCH VIDEO 2
- MEDIA COVER POST 1 MEDIA COVER POST 2
- MEDIA COVER POST 3

The inauguration ceremony announced the unveiling of the revamped Cosy Garden, the culmination of two years of planning and the implementation of a comprehensive array of sustainable solutions. This event not only symbolised a new chapter but also served as the launchpad for transforming the Green Innovation Center into a dynamic hub for fostering sustainable living practices in the community.

INAUGURATION OF GREEN INNOVATION CENTER @COSYGARDEN

8TH OF JUNE 2023

Partners: All sponsors and partners

Special Guest of Honour Low Yen Ling, Minister of State, Ministry of Trade and Industry & Ministry of Culture, Community and Youth and Mayor of South West District; Murali Pillai, Adviser to Bukit Batok Grassroots Organisations; Jenny Egermark, Chargé d'Affaires, Embassy of Sweden; and Emil Akander, Sweden's Trade Commissioner to Singapore.

PARTICIPANTS: 130 PEOPLE

IMPACT



RECYCLING BREAKFAST EVENTS

10 JUNE 2023

Hosted by: Tetra Pak

The purpose of the Recycling Community Breakfast was to help citizens be more aware of the waste that packaging generates and how everyone can contribute to Reduce, Reuse, Recycle and Repurpose packaging waste.

From 9-12 pm, we engaged in children's paper making recycling and basket upcycling activities as well as interesting talks on why and how to recycle packaging material in Singapore.

Partners that joined SwedCham and Tetra Pak to share their knowledge on recycling in Singapore during this workshop included the National Environment Agency (NEA) as well as local SMEs Green Sproutz Singapore, Semula, Magorium, susGain and Pre-school Market Place.

PARTICIPANTS: 80 PEOPLE

LINKEDIN OUTREACH

INVITATION POST

FOLLOW UP POST

IMPACT

For this event, the impact was captured by questionnaire answered by the participants directly after the event. They were asked about their intentionality to change recycling habits. Another set of questions was sent after a month to capture if any actual behavioral change had happened since the event. Below we present the result in a snapshot and responses to all 12 questions are available on request.

BECAUSE OF THE RECYCLING EVENT:

"I AM CONSIDERING RECYCLING MORE"

"I BELIEVE MORE STRONGLY IN THE IMPORTANCE OF RECYCLING"



AGREE OR STRONGLY AGREE



DISAGREE OR STRONGLY DISAGREE

HAVE YOU TALKED TO SOMEONE ABOUT RECYCLING SINCE YOU ATTENDED THE EVENT?

YES!
100%

HAVE YOU RECYCLED ANY KIND OF MATERIAL THAT YOU DIDN'T RECYCLE BEFORE (I.E. BATTERIES, CLOTHES, CARTON, PLASTIC)?

100%

'I WOULD RECOMMEND A FRIEND TO VISIT COSY GARDEN"

89%



CIRCULAR FASHION BREAKFAST EVENT

9 SEP 2023

Hosted by: H&M

A Circular Fashion Breakfast was organized to help citizens be more aware of fashion and sustainability, appreciate their garments, consider repairing them, and explore options to buy second-hand.

During the event the participants explored different ways of caring for garments so they last longer, upcycling textiles into new beautiful items and last but not least - community clothes swapping - an excellent way of making use of unwanted clothes and at the same time minimise waste.

Partners for the event were H&M, The Fashion Pulpit, Singapore Fashion Council and Biekaleidoscope.

PARTICIPANTS: 100 PEOPLE

LINKEDIN OUTREACH

INVITATION POST FOLLOW UP POST FOLLOW UP VIDEO

For this event, the impact was captured by a questionnaire answered by the participants directly after the event. The screening questions included gender, age, size of household and addressed purchasing patterns and interest to reduce consumption of clothes.

IMPACT

INSIGHTS CIRCULAR FASHION EVENT:

90% FEMALE ATTENDEES - MORE INTEREST AMONG WOMEN OF ALL AGES

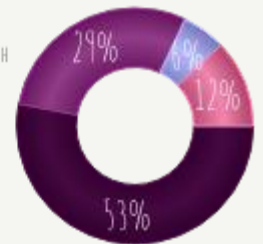
DOES THIS EVENT MAKE YOU RETHINK YOUR CLOTHES PURCHASE PATTERN? **53% YES!**

41% OF THE PARTICIPANTS ALREADY BUY SECOND HAND

INTEREST FOR FUTURE EVENTS:

- EXTEND LIFETIME OF CLOTHES (REPAIRING, MENDING, SEWING)
- UPCYCLE ACTIVITIES (CLOTHES, PLASTIC, PAPER)
- MORE SWAPPING OPPORTUNITIES

GARMENTS PURCHASED PER MONTH & PER PERSON



AMONG THOSE WHO ARE SHOPPING CLOTHES EVERY MONTH THE APPETITE PERSISTS - THE MOST POPULAR ACTIONS TO TAKE TO REDUCE THE CONSUMPTION OF CLOTHES WERE TO DONATE, RECYCLE & SWAP (SO THAT I CAN BUY MORE CLOTHES)



FOOD HEROES - SUSTAINABLE EATING WORKSHOP

28 OCT 2023

Hosted by: **Electrolux Group**

The Food Heroes Workshop focused on healthy eating and food waste and was hosted by Electrolux Group together with their partner Treatsure. It was a fun-packed and educational morning for children 7-12 years old with their parents, learning about the relationship between what we eat and our planet and what we can do collectively to avoid throwing away so much food.

The workshop was a collaborative project with South West Community Development Council and Bukit Batok's Grassroots Organisations.

**PARTICIPANTS: 15 FAMILIES FROM
PRINCESS ELIZABETH'S PRIMARY SCHOOL**

IMPACT

The hands-on preparation of recipes made from homegrown vegetables enhanced the learning experience and addressed in a very natural way everything from healthy eating habits, locally grown to the importance of reducing meat consumption and minimizing food waste.

LINKEDIN OUTREACH

INVITATION POST FOLLOW UP VIDEO



04 Recycling drive

Over one month, 32 kg of beverage cartons was collected from six corporate partners and three schools and sent for recycling. The GIC recycling drive was organised by GreenSproutz Singapore and Tetra Pak.

05 Enabeling collaborations

Magic happens when people from different parts of the community meet. Local providers of sustainable solutions can support multinational companies with meaningful CSR projects and contribute to reducing their carbon footprint. Students can learn from companies about their sustainability agenda and connect with the garden community to understand the importance of taking care of the planet. Companies have a wish to connect with the local community and involve staff members in hands-on volunteer work.

Due to the strong focus on rolling out the agenda of events during 2023, there are many more meaningful connections to be made from the GIC over the coming years.

Atlas Copco brought a team of 20 to do the planting for the therapeutic garden to prepare for the inauguration.



Excited staff members from Hexagon helped out to clear for the solar panels by cutting branches and leaves.

Bukit Batok Secondary School & Queenstown Secondary School created videos for the garden tour to explain the difference stations implemented in Cosy Garden through the GIC.



Awards & Recognitions



2 Nov 2023: SwedCham and the GIC team won EuroCham's Green Initiative of the Year Award for its Green Innovation Centre. The Award was presented by Deputy Prime Minister Heng Swee Keat during EuroCham's Sustainability Awards Gala Dinner.

LINKEDIN OUTREACH

NOMINATION POST

AWARD WINNING POST

Mayor Low Yen Ling, Minister of State, Ministry of Trade and Industry & Ministry of Culture, Community and Youth and Mayor of South West District endorses the Green Innovation Center at Cosy Garden:

"I hope this initiative will serve as a blueprint for more of such community gardens in the district as we work towards shaping a greener and sustainable nation!"

LINKEDIN OUTREACH

LINKED IN POST



Kar Lee Yim, Strategic Director of Singapore's PA/CDCs visited the Cosy Garden and encourages other international chambers and companies to join the movement:

"This inspiring project is a testament to the power of collaboration, bringing together PA/SWCDC, Swedish Chamber of Commerce, and more than 20 corporate companies".

LINKEDIN OUTREACH

LINKED IN POST



Conclusions & Recommendations

In this section, we are excited to share the suggestions we gathered throughout the journey of constructing the Green Innovation Centre. Our aim is for these ideas to serve as stepping stones for future actions, propelling us forward in our mission to make a lasting impact through the GIC.

01 REPLICATE, MAKE VISIBLE AND COMMUNICATE IMPACT

- **Invite other Chambers of Commerce:** What if can replicate this project and start similar initiatives with other garden communities in other CDCs?
- **Create a "Green Innovation Center @ Cosy Garden" web site:** To inspire, spread the purpose of the project, and share information about sustainable solutions and upcoming activities. Building a simple web site could be an interesting project for secondary school students with low-cost and high-impact.
- **Create a marketplace:** To connect local providers of sustainable solutions with companies that are looking for more sustainable practices and meaningful CSR activities. A marketplace/meeting room could be added to the web site where providers of sustainable solutions can present themselves.

02 GARDEN VISIT ENGAGEMENT

To make the garden even more accessible and increase the impact of the visits from Cosy Garden we suggest to:

- **Enhance the explanation of the self-guided tour:** Incorporate a poster at the entrance which will provide clear instructions on navigating the trail and utilising the susGain app for an enriched experience.
- **Engage with primary and secondary schools:** Create support material and/or programs for teachers so that they can learn about the project and integrate sustainability into the curriculum before visiting Cosy Garden. This could be in the form of worksheet packages for different age groups or collaborations with providers of sustainability education for children.
- **Engage families for a visit:** Make worksheets available for parents who would want to visit the garden with their children.

03 ENVIRONMENTAL IMPACT FROM SUSTAINABLE FEATURES

- Continue harnessing the savings of fresh water, grid electricity, etc, and keep an open mind towards new solutions that could potentially create even more impact in Cosy Garden.
- Share experience and knowledge about the applied solutions to other community gardens, schools, companies, and other communities.

Conclusions & Recommendations

03 IMPACT FROM ACTIVITIES

The activities arranged on the void deck next to the garden had maximum attendance capacity for all events, approximately 100 people. That confirms a great interest in sustainability topics generally. Hands-on activities in different areas have been mostly appreciated.

Our recommendation is to spread the target group and focus on Gen X, primary and secondary school students. It can be achieved by bringing more students into the working group and letting them design and drive the activities with support.

In the workshops, many proposals for activities were captured, see Appendix A & B. The questionnaires collected after the activities also collected areas of interest for future initiatives. Transport, repairing of electronics, avoiding food waste, swapping or flea market for items for children, and bins for clothes recycling are only a few of the proposals that were discussed frequently.

04 RECYCLING DRIVES

An interest in recycling drives of clothes and electronics was raised in the project. Our recommendation is to identify companies interested in a specific kind of "waste" and collaborate for the setup and impact measurement so that people feel that they make a difference and see opportunities for a circular economy.

05 ENABELING COLLABORATIONS

Many opportunities for mutually beneficial collaborations between stakeholder groups have been identified in the project. Below "Garden community" can refer to the Cosy Garden and Bukit Batok People's Association.

- **Large corporations & sustainable solution providers:** Elaborate meaningful CSR activities and solutions for organizations.
- **Schools & garden community:** Include a visit to the garden and learn from the Cosy Garden about the project and the solutions as part of the curriculum.
- **Sustainable solution providers & schools:** Apply sustainable solutions and activities in the schools.
- **Garden community & large corporations:** Volunteer opportunities for companies to connect with the local community and support activities when needed.
- **Garden community & universities:** Incubator for exploring and testing sustainable solutions or activities.

Thanks to all partners involved!

Almost 50 partners and stakeholders have been involved in driving this initiative - MNCs, SMEs, social enterprises, government authorities, schools and volunteer groups!



Proposals Green Living activities

In the workshop "City in Nature" in February 2023, many ideas were discussed to create meaningful activities in the garden. The proposals below are typed "as-is" and represent the interests and ideas of all stakeholder groups and have great potential to continue to make an impact!

PEOPLE AT THE GARDEN - BRINGING PEOPLE CLOSER TO NATURE

- Access to the public, allowing the use of the garden
- Destress/Meditation in the outdoor living room
- Use of Garden facilities and Theurapeutic Garden
- Encourage study, working and meetings at the garden
- Potentiall setup one cube (using old container) to use and pay
- Funds to be used for garden maintenance

CREATING AWARENESS AMONG PUBLIC - SHOWING IMPORTANCE OF SUSTAINABLITY AND GREEN LIVING

- Arrange Tours to bring people to see the whole ecosystem at garden
- Billboard with suppliers of locally grown vegetables
- Educational board on easy takeaways - how can I apply what I have learnt about sustainability
- Put QR Codes on features in the garden to learn about circularity
- Student creating poster/website/social media to promote green practices
- Planned speeches or Booths at the Garden to present more information - say once in 2 months

LEARNING AND KNOWLEDGE-SHARING

- Green School Ambassador "Train the Trainer"
- Balcony Gardening - growing own herbs & veggies - grow and training
- Workshop for neighbour children - primary and secondary
- Why do we have to take care of our water
- Children + Parent - what can I grow at home
- Promote reduction of food waste
- Visit by Ngee Ann Poly landscape design and Horticulture (LDH) students as part of their course
- module learning points in terms of making a cohesive and inclusive garden/program, planning/landscape design (utilizes whole garden space)
- Students to learn gardening (a) learning journey (post exam activitiy) (b) monthly session by one earth club.
- Students to volunteer and learn
- Exchange Program Swedish garden community.
- Share videos and project
- Workshops from Ngee Ann Students to have "cool" role models for secondary
- Home owner -> Education
- Food Waster Management - Meat AND non-meat
- Student to learn about the garden and produce a poster/website/social media to promote green practices

Proposals Sustainable Society activities

The workshop "Sustainable Living" was arranged in January 2023. A broad range of stakeholders attended to define what 5R activities to focus on in the project. It resulted in a shortlist of five categories that people found particularly interesting to learn about, find solutions, and improve. Each proposal was evaluated in a viability & impact matrix to agree on which ones to prioritise with the given resources and skills in the project group.

Many of the proposals have already been covered in the activities arranged from July to November 2023, but there are many more meaningful initiatives to launch or repeat in other formats! (The ideas are captured "as-is")

PACKAGING

REFUSE	Campaign around what you can refuse for packaging - straws, bags
REDUCE	Bring your own container for lunch/dinner
REUSE	Bubble wraps can be used for other packaging
REPURPOSE	<ul style="list-style-type: none"> • Repurpose drink/food packaging into sustainable crafts to let visitors of the cosy garden learn how to repurpose on a personal level. Workshops can be held at the void deck nearby or at community center. • Use plastic packaging as stuffing for – teddy bears, cushions, table mats, shoe fillers etc.
RECYCLE	<ul style="list-style-type: none"> • Education campaign on packaging recycling – understanding symbols, where to find recycling facilities • Have bins with more specific labels pertaining to specific kinds of packaging. E.g. Beverage cartons or wax paper for nice takeaways – so it focus and simplifies recycling for residents, as compared to general recycling bins • Repurpose/recycle e.g. plastic project repurposed bottle caps into carabiners, coasters decoration ornaments etc. • Check if we could do closed loop recycling program for specific plastic ex bottle for other use

CLOTHES

REFUSE	<ul style="list-style-type: none"> • Asking/Nudging why are you buying? Is it really needed? • Set a limit/budget per year
REDUCE	Rental, 2nd Hand, repair old items, tailor made
REUSE	<ul style="list-style-type: none"> • Wear items over and over • Combine items of different outfits • Buy clothes that you really love, are timeless and durable; refresh items • Scrap clothes use as stuffing for – teddy bear, cushions, table mats, shoe fillers etc.
REPURPOSE	<ul style="list-style-type: none"> • Finding new owners/pre-loved fashion items (e.g. OLIO app; cloop, ReFash) • Turn into soft toys for pets/kids • Tailor - Workshops on sewing and repurposing • Teach residents how to repurpose clothing and other fabric by turning them into other useful items such as notebooks, pouches, wallets etc. through craft workshops at schools/community centers
RECYCLE	<ul style="list-style-type: none"> • Recycle bins • Garment collecting (H&M and other brands) • Point residents toward specific locations where they can bring their unwanted clothes so it makes recycling clothes more actionable (aside from say Salvation Army). Example Green Square, Tzuchi

FOOD

REFUSE	<ul style="list-style-type: none"> • Campaign – not to buy excessive food, esp during festive seasons
REDUCE	<ul style="list-style-type: none"> • Mart that sell food in one person, portion • In the same way that drink stalls have tiered levels of sugar to help consumers make more conscious decisions, maybe at hawker centers, there can be tiers of the amount of food for consumers to make a conscious decision of how much food to buy to reduce food wastage in general. Have visuals to show options • Food collection program at schools • Excessive household food products -> Small household positions • Awareness – weigh your food waste (tracker)
REUSE	<ul style="list-style-type: none"> • Start an “ugly” food volunteer group • Source of information of alternatives for buying second life food (ugly food)
REPURPOSE	<ul style="list-style-type: none"> • Collection/redistribution of expiring or unwanted food • Distribute expiring food to needy (e.g. monthly grocery giveaway) • At least 2-3 months shelf life • Need assistance to deliver food to my center • Workshops on how to give a second life to expiring food – e.g. turning old milk into yogurt
RECYCLE	<ul style="list-style-type: none"> • Composting/Vermiculture @ home • Develop a low cost homekit for composting • Make Fruit Enzymes

ELECTRONICS

REFUSE	NA
REDUCE	<ul style="list-style-type: none"> • Rental Systems – Programs like Electrolux Lavande • Campaign – Do I need new one or can I use old one?
REUSE	<ul style="list-style-type: none"> • Repair Workshops • Repair Koptiam • Create an ecosystem of sharing among neighbors • Include Lavande from Electrolux in a workshop around leasing alternatives • Create a list of repairs of certain brands/appliances
REPURPOSE	<ul style="list-style-type: none"> • Old laptops as display sample in shops • Partner with a computer repair show or e-waste firm (e.g. ALBA) to repurpose usable electronic parts • Upcycle electronics into ART items
RECYCLE	<ul style="list-style-type: none"> • E-waste quarterly collection proposal • Have educational graphics at waste disposal or general bins or lift areas that help suggest recyclable types of electronics that residents can consider recycling. • Designated collection fair just for electronics • Donate old laptops still reusable to organisations like re-pc.org. Work with corporate partners to do this on large scale.

TRANSPORT

REFUSE	<ul style="list-style-type: none"> • Work from Home • Walk • Calculate carbon footprint of travel/commutes via various modes. Refuse car, taxi transport, unnecessary air travel
REDUCE	<ul style="list-style-type: none"> • Carpool announcements on an online platform • Encourage the public to walk or take public transport • Stay local and reduce traveling abroad • Encourage advance planning for the day and reading material/songs/podcasts for the journey
REUSE	Second Hand Bikes and cars
REPURPOSE	NA
RECYCLE	Cycle for electricity – competitions etc