

Environmental Report

2017-2018



香港城市大學
City University of Hong Kong

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Message from Director

Campus Development Office and Facilities Management Office are committed to conserving the environment through appropriate means. We promote an environmentally responsible attitude among our members in the efficient use of resources, waste minimization and pollution prevention in the course of our work.

The Environmental Report for 2017 – 2018 covers the period from 1 July 2017 to 30 June 2018. In this report, you will see our 2017 – 18 performance as well as our efforts in striving for sustainable development. This year we continued to follow our passion and keep persevering, challenging and pushing harder on our environmental performance. We have recycled over 142 tonnes of solid wastes and 210 tonnes of food waste.

Please enjoy reading this report. We hope that this report contributes towards educating our key audiences and helps to foster greater environmental awareness.

Brenda Lai
Director of Facilities Management

Environmental Performance

Waste Management

- Diverted over 142 tonnes of solid waste from landfills.
- Recycled over 210 tonnes of food waste.

Energy Management

- Consumed 62.88 million kWh electrical energy.

Water Management

- 2,176 m³ of grey water recycled for irrigation, which represents 5.6% of total water consumption for irrigation from water basin and condensate water from air-conditioning on the campus for irrigation.
- 2,700 m³ of rain water collected from the rain harvest tank for irrigation.

Awards

- Awarded an “Excellence Level” Wastewi\$e Certificate by the Environmental Campaign Committee of HKSAR Government in succession of 16 years.
- Signed the Charter on External Lighting and won the Platinum Award.
- Awarded the Gold Award under Commendation Scheme on Source Separation of Commercial and Industrial Waste by the Environmental Protection Department of HKSAR Government.



1. Waste Management

Waste Management Approach

It is the Policy of City University of Hong Kong (CityU) to adopt a 5R's approach in waste management, which include Rethink, Reduce, Restore, Reuse and Recycle.



1. *Waste Management*

Rethink

- Advertise transferable items on the University Network prior to disposal
- Check for availability of items before making any new purchase

Reduce

- Encourage 2-sided printing / photocopying
- Use electronic mail for communication and on-line electronic filing to reduce paper usage
- Use small font size and spacing in typed paper communication to the extent reasonable
- Reduce / avoid use of one-off disposable items



Ordering material specifying recycle material.

For example backing of the standard carpet tiles are using recycle plastic.

1. Waste Management

Municipal Solid Waste Trial

Facilities Management Office (FMO) conducted a phase II CityU MSW Trial further to the phase I trial conducted from 1 January to 30 June 2017. The phase II Trial was conducted at Run Run Shaw Creative Media Centre (CMC) from 1 July to 31 December 2017. The areas in CMC included all the waste and recyclables generated from common areas, classrooms and offices.

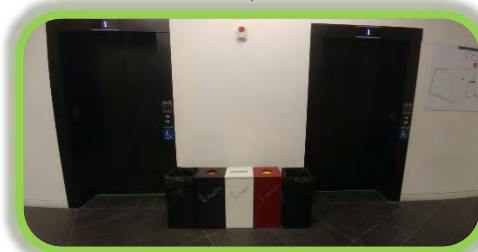
The baseline waste profiles of selected sites were obtained, different interventions were applied to find out the most effective ways of waste reduction and to promote waste separation and recycling.

Intervention 1: Relocation of waste bins by relocating existing waste bins to each location where there is recycle bins. The location of other green bins remain unchanged.

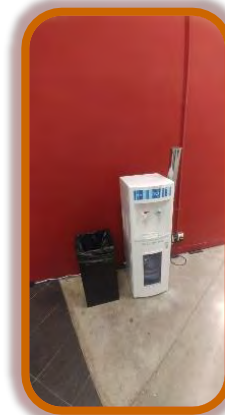
Intervention 2: Reduced no. of waste bins by putting waste bins only besides recycle bins and taking away all other waste bins from common area.



Intervention 1



Intervention 2



1. Waste Management

Municipal Solid Waste Trial

Results of waste audit:

| Items | Baseline (Sept. 2017) | | | Intervention 1 (Oct. 2017) | | | Intervention 2 (Nov. 2017) | | |
|--------------------------|-----------------------|--------------|--------------|----------------------------|--------------|--------------|----------------------------|--------------|--------------|
| | Waste bin | | Recycle bins | Waste bins | | Recycle bins | Waste bins | | Recycle bins |
| | Weight (kg) | % * | Weight (kg) | Weight (kg) | % | Weight (kg) | Weight (kg) | % | Weight (kg) |
| Paper | 29.1 | 5.52 | 7.4 | 60.7 | 13.32 | 15.5 | 47.5 | 9.03 | 11.3 |
| Plastics | 41.1 | 7.80 | 8.5 | 41.2 | 9.04 | 22.2 | 28.9 | 5.49 | 10.9 |
| Metals | 19.8 | 3.76 | 2.6 | 14.2 | 3.12 | 7.4 | 15.1 | 2.87 | 2.2 |
| Glass bottles | 0 | 0 | | 2.1 | 0.46 | | | | |
| Total recyclables | 90.3 | 17.13 | 18.5 | 118.2 | 25.94 | 45.1 | 91.5 | 17.39 | 24.4 |
| Total waste | 527.2 | | | 455.6 | | | 526.3 | | |

Note: * % means the percentage of recyclables in the total waste collected.

The results of waste audits demonstrated that recyclables being placed in waste bins and recycle bins for intervention 1 were high but no significant change for intervention 2 when compared with baseline. This may due to major events, such as Information Day, were held in the period of intervention 1.

1. Waste Management

Reuse



Vinyl Backdrop using wooden board



No specific year indicated on banner for reuse



Foam Board Backdrop using display unit



- Reuse event resources such as stages, vinyl backdrop using wooden board and foam board backdrop using display unit
- Reuse envelope for internal mailing
- Reuse banner materials for protection of property during works and foam board for protection of lift to give these materials a “second life”

1. Waste Management

Reuse

Re-use of more than 200 kg wood chips shredded from tree waste on campus.



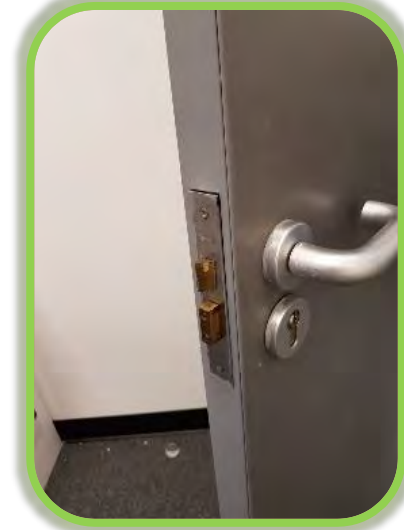
The shape of damaged garbage container was modified and reused.



1. Waste Management

Reuse

Dismantled ironmongeries still in good condition were reused at other locations on campus.



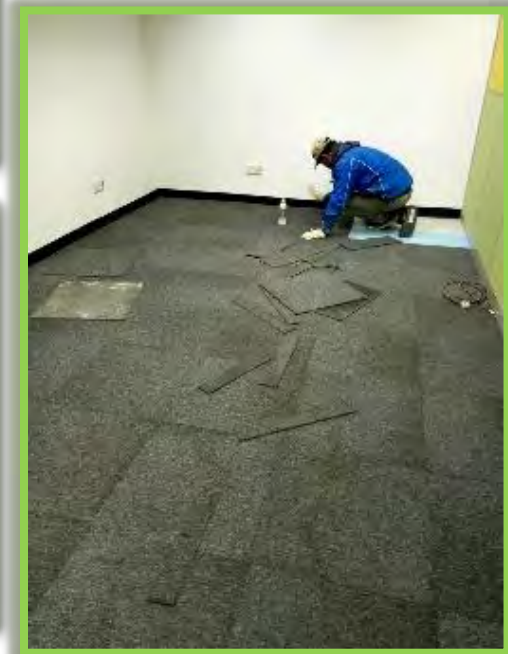
1. *Waste Management*

Reuse

Surplus materials were shared for other campus improvement projects. For example, PVC sheet flooring of Li Dak Sum Yip Yio Chin Academic Building (LI) were used for floor refurbishment of 1/F Yeung Kin Man Academic Building (YEUNG).



The carpet tiles still in good condition were collected from the renovation works of Library and used at various location to replace the stain or dirt carpet tiles in YEUNG.



1. Waste Management

Reuse

Dismantled and reused air filters (25 nos) of air handling units (AHUs) / Sports Centre.



Collected and reused discarded VSD controllers and pressure transmitters as spare from 3/F pump room of Bank of China (Hong Kong) Complex (BOC).



Dismantled and reused thermostats (20 nos.) from fan coil units (FCUs) / Sports Centre.

1. Waste Management

Restore

Usable parts of the damaged furniture were removed and reused in the damaged furniture in Cheng Yick-chi Building (CYC), Lau Ming Wai Academic Building (LAU) and YEUNG.



Dismantled and re-assembled workable parts to form a functional chilled water flow sensor (serving 7/F AMB).

1. Waste Management

Recycle

| | Year 2016 – 17 | Year 2017 - 18 | Difference | % |
|--|------------------|------------------|---------------|---------------|
| Waste paper recycled (kg) | 110,156 | 113,672 | 3,516 | 3.19% |
| Aluminum cans recycled (kg) | 464 | 620 | 156 | 33.62% |
| Plastic bottles recycled (kg) | 1,264 | 1,337 | 73 | 5.78% |
| Printer cartridges recycled (kg) | 618 | 422 | -196 | -31.72% |
| Compact discs recycled (kg) | 41 | 33 | -8 | -19.51% |
| Mercury-containing fluorescent tubes and lamps recycled (kg) | 18,000 | 16,200 | -1,800 | -10.00% |
| Green waste and plant trimmings reused (kg) | 180 | 234 | 54 | 30.00% |
| Glass bottles recycled (kg) | 9,877 | 8,743 | -1,134 | -11.48% |
| Rechargeable batteries recycled (kg) | 0 | 1,000 | 1,000 | - |
| Used Lai See packets (kg) | 100 | 135 | 35 | 35.00% |
| No. of plastic straws saved (pieces) | N/A | 181,767 | - | - |
| Total municipal solid waste (kg) | 1,248,632 | 1,247,160 | -1,472 | -0.12% |

Recycle waste where appropriate (e.g. paper / carton boxes, aluminum cans, plastic bottles and laser printer cartridges etc.).

Recyclables:

142 tonnes

MSW:

1,247 tonnes



1. *Waste Management*

Recycle - food waste

The University always makes use of each opportunity in applying green measures on campus, including the requirements of sorting, collection and recycling of food waste in the catering services contract.

All caterers on campus collect food waste generated from their respective catering outlets and recycle it into fish / animal feed or fertilizer according to requirements laid down in their catering services contracts. FMO continues to play the role of monitoring. FMO inspects catering outlets on a regular basis to check that proper separation, collection and recycling are carried out. Also, site inspections were conducted to the manufacture sites of the food waste collection contractors to check that food waste collected from CityU is actually processed and recycled into fish / animal feed or fertilizer.

Summary of Food Waste Recycled :

| | Year 2016 – 17 | Year 2017 – 18 |
|--|----------------|----------------|
| Food waste collected and recycled for making fish / animal feed or fertilizer (kg) | 250,155 | 209,486 |

Food waste: 210 tonnes

1. *Waste Management*

Hazardous Waste

Hazardous wastes disposed of in year 2016-2017 and year 2017-2018:

| | Year 2016 – 17 | Year 2017 – 18 |
|------------------------------|----------------|----------------|
| Liquid Chemical Waste # (L) | 22,200 | 13,375 |
| Solid Chemical Waste # (kg) | 31,690 | 16,500 |
| Clinical Waste * (kg) | 3,751 | 2,469 |
| Liquid Radioactive Waste (L) | 12.5 | 22.5 |
| Solid Radioactive Waste (kg) | 8.5 | 6 |

- Remark:
- # As defined under the Waste Disposal Ordinance (Cap. 354). These wastes include fluorescent tubes, lamps, batteries, oily rags, paint pails, etc.
 - * Mainly blood contaminated waste from Young Chung-Yee Health Centre of the University and dead animals from laboratories.

2. *Air Quality Management*

Indoor Air Quality

People breathe continuously, so the cleanliness of the air we breathe in is very important to our health. We spend most of our time indoor especially at working place. A polluted indoor environment can cause headache, eye irritation, breathing difficulties, skin allergic reactions, nausea and fatigue. Therefore, a good indoor air quality environment is important.

The University conducted in-house IAQ measurements for different areas on campus in past years. Last year, we appointed a consultant to conduct a U-wide IAQ measurement for eight buildings with central air-conditioning supply on campus with the aim to obtain IAQ certification. The eight buildings are:

1. Yeung Kin Man Academic Building
2. Li Dak Sum Yip Yio Chin Academic Building
3. Lau Ming Wai Academic Building
4. Run Run Shaw Creative Media Centre
5. Cheng Yick-chi Building
6. Administration Building
7. Fong Yun-wah Building
8. Mong Man-wai Building



3. Water Management

Water consumption and recycling record.

| | 2016-2017 | 2017-2018 | Difference | % |
|---|-----------|-----------|------------|---------|
| Potable (1000m ³) | 58.36 | 56.48 | -1.88 | -3.22 |
| Cleansing & Irrigation (1000m ³) | 46.07 | 48.38 | 2.31 | 5.01 |
| A/C (1000m ³) | 109.64 | 111.08 | 1.44 | 1.31 |
| Swim (1000m ³) | 2.88 | 2.43 | -0.45 | -15.63 |
| Grey water recycled (1000m ³) | 3.42 | 2.18 | -1.24 | -36.26 |
| Rain water harvested (1000m ³) | 2.56 | 2.7 | 0.14 | 5.47 |
| Under ground water used (1000m ³) | 0.014 | 0 | -0.014 | -100.00 |

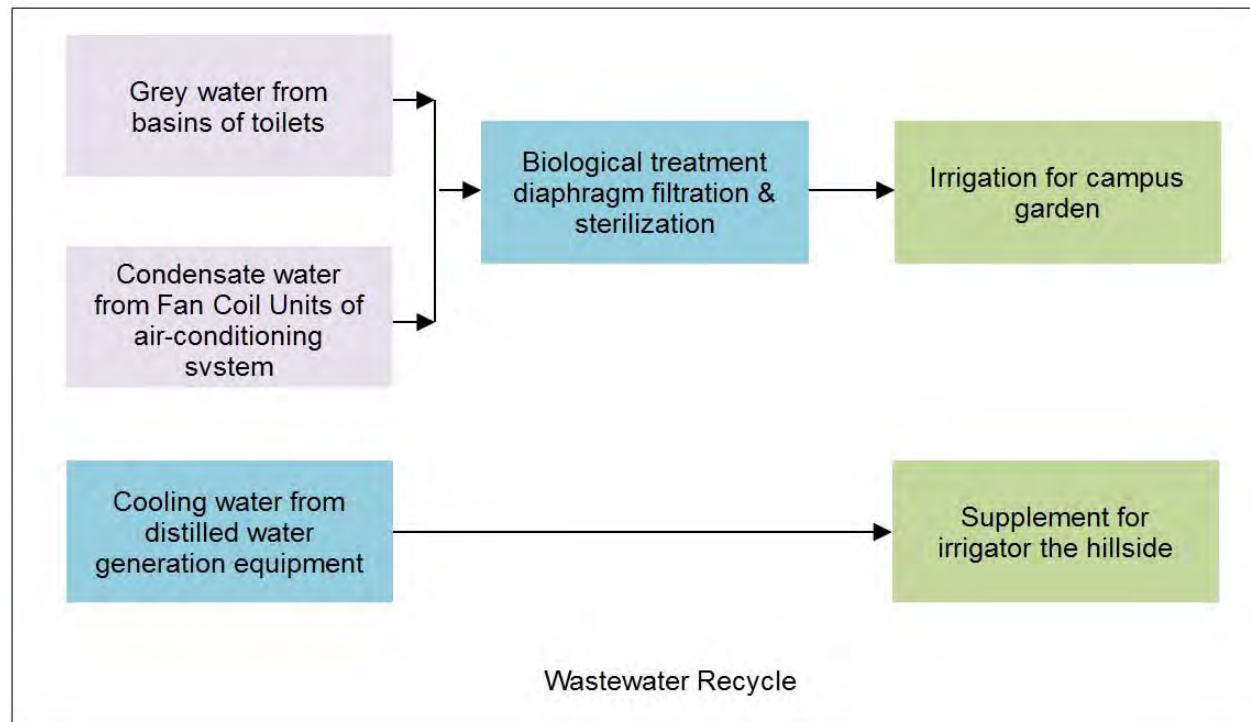
Compare with 2016-2017, the total water consumption for 2017-2018 increased slightly by 0.13% which is mainly reflected by the water used for irrigation and air-conditioning system.

This may due to hot weather in the year. Therefore, more water are required for cooling of air-conditioning system and used for irrigation. On the other hand, the first priority was to use grey water, rain water and under ground water for irrigation. However, the under ground water was dry out in 2017-2018 and less grey water recycled which caused the increase in consumption of water for cleansing and irrigation.

3. Water Management

Recycling of Grey Water

During the year 2017/18, 2,176 m³ of grey water has been recycled, which represents 5.6% of the total consumption for irrigation from water basin and condensate water from air-conditioning on the campus for irrigation. Furthermore, 2,700 m³ of rain water has been collected from the rain harvest tank.



4. *Energy Management*

Energy Consumption

The total annual electricity consumption for 2017/18 is 62.88 million kWh, increased 2.28 million kWh or 3.76%. The increase of energy consumption was probably due to external environmental factors such as hot weather. The composition of electricity consumption is tabulated below.

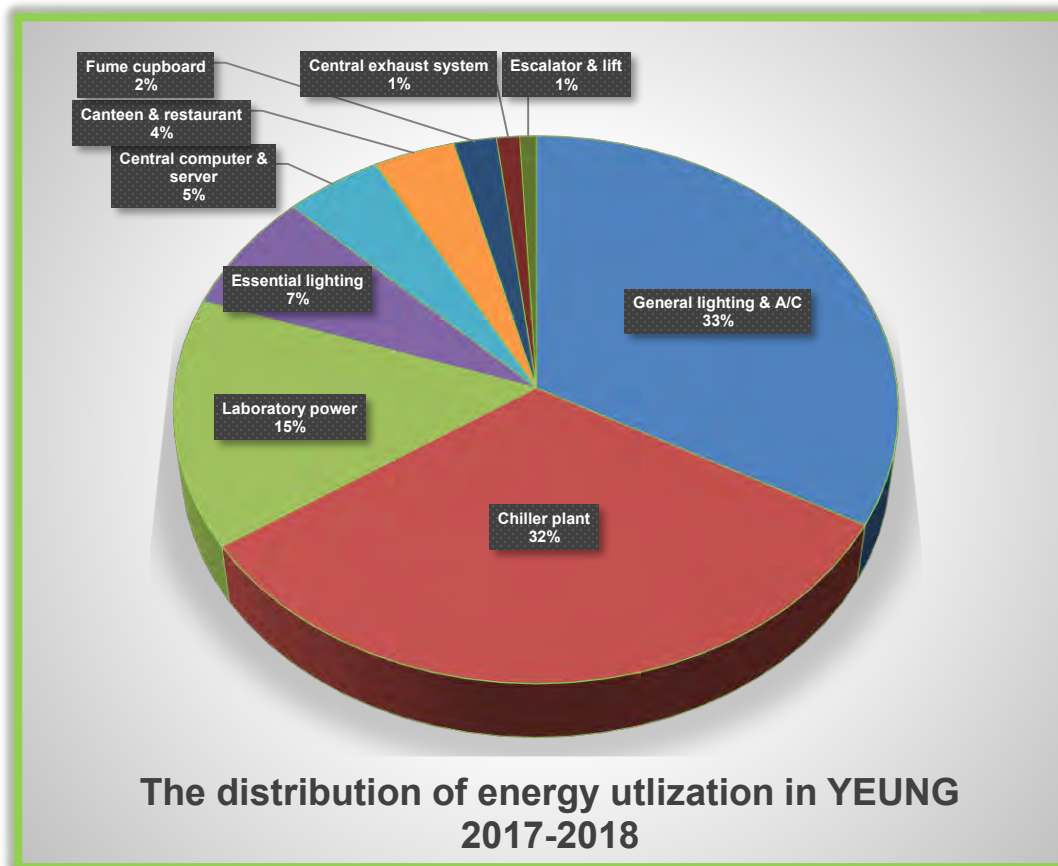
| Building | 2016 / 2017 (mil kWh) | 2017 / 2018 (mil kWh) | Difference (mil kWh) | % |
|----------|--------------------------|--------------------------|-------------------------|-------|
| YEUNG | 43.7 | 45.4 | 1.7 | 3.89% |
| LI | 5.6 | 5.75 | 0.15 | 2.68% |
| LAU | 6.6 | 6.93 | 0.33 | 5.00% |
| CMC | 4.7 | 4.8 | 0.1 | 2.13% |
| Total | 60.6 | 62.88 | 2.28 | 3.76% |

4. Energy Management

Energy Consumption

The distribution of energy utilization in YEUNG is :

- General lighting & A/C, 33%
- Chiller plant, 32%
- Laboratory power, 15%
- Essential lighting, 7%
- Central computer & server, 5%
- Canteen & restaurant, 4%
- Fume cupboard, 2%
- Central exhaust system, 1%
- Escalator & lift, 1%



4. *Energy Management*

Energy saving initiatives.

- Low Block, LAU, replaced T5 tube by dimmable LED lamps (120 nos.), annual Saving 22.3 MWh
- BOC Building 8/F & 9/F restaurants, replaced the 30-year old AHUs, PAU, fans with new and better energy efficiency AHU / PAU / fans
- Installed 22 laser-source video projectors instead of lamp projectors in classrooms to avoid using mercury lamp units for environment protection



4. Energy Management

Greenhouse Gas Emissions and Removal

Summary Table on Greenhouse Gas (GHG) Emissions and Removal
for Campus of City University of Hong Kong for Year July 2017/June 2018

| Description (by sources, areas, etc.) | Emissions by gas type [(in tonnes of CO ₂ -equivalent) (CO ₂ -e)] | | | | | |
|---|---|----------------------------|----------------------------------|----------------------------|--------------------------|-------------------|
| | Carbon dioxide (CO ₂) | Methane (CH ₄) | Nitrous oxide (N ₂ O) | Hydrofluoro-carbons (HFCs) | Perfluoro-carbons (PFCs) | Total |
| Scope 1 Direct Emissions | | | | | | |
| Stationary Combustion Sources | | | | | | |
| Standby-generator | 2.517282 | 0.00048333 | 0.002209122 | N/A | N/A | 2.520 |
| Towngas used in Lab. | 16.150464 | 0.005934298 | 0.019445184 | N/A | N/A | 16.176 |
| Mobile Combustion Sources | | | | | | |
| Vehicle | 59.84505242 | 0.108381184 | 5.373459295 | N/A | N/A | 65.327 |
| Fugitive Emissions | | | | | | |
| Refrigerant used in A/C plant | N/A | N/A | N/A | 158.57 | | 158.570 |
| Other Direct Emissions | | | | | | |
| NIL | | | | | | 0.000 |
| Scope 1 Emissions Total | 78.51279842 | 0.114798811 | 5.395113601 | 158.57 | | 242.593 |
| Scope 1 Direct Removals | | | | | | |
| Planting of Additional Trees based on year 2013/2014 | | | | | | |
| Campus | -0.276 | N/A | N/A | N/A | N/A | -0.276 |
| Other Direct Removals | | | | | | |
| Vacuum tube solar panel for shower | 19.99 | | | | | 19.990 |
| LAU PV on-grid system | 2.628 | | | | | 2.628 |
| Scope 1 Removals Total | 22.618 | 0 | 0 | 0 | 0 | 22.618 |
| Scope 2 Energy Indirect Emission (To be reported in general without being classified into specific gas type) | | | | | | |
| Electricity Purchased | | | | | | |
| Campus | | | | | | 34,494.193 |
| Towngas Purchased | | | | | | |
| Campus | | | | | | 3.757 |
| Scope 2 Emission Total | | | | | | 34,497.951 |
| Scope 3 Other Indirect Emissions | | | | | | |
| Methane Generation at Landfill due to Disposal of Paper Waste | | | | | | |
| Campus | N/A | No data | N/A | N/A | N/A | No data |
| Electricity for Processing Fresh Water (To be reported in general without being classified into specific gas type) | | | | | | |
| Campus | | | | | | 100.584 |
| Electricity for Processing Sewage (To be reported in general without being classified into specific gas type) | | | | | | |
| Campus | | | | | | 40.803 |
| Others | | | | | | |
| NIL | | | | | | 0.000 |
| Scope 3 Emissions Total | | | | | | 141.387 |
| Other GHG Offsets / Removals | | | | | | |
| On-site Renewable Energy Sources for Off-site Uses | | | | | | |
| NIL | | | | | | 0.000 |
| Off-site GHG Reduction Projects in Hong Kong | | | | | | |
| Waste paper for recycling | | 530.0304 | | | | 530.030 |
| Off-site GHG Reduction Projects outside Hong Kong | | | | | | |
| NIL | | | | | | 0.000 |

Summary of Results

| | | |
|--------------------------------------|-------------------|-----------------------------------|
| Total Scope 1 Emissions : | 242.593 | Tonnes of CO ₂ -e |
| Total Scope 1 Removals : | 22.618 | Tonnes of CO ₂ -e |
| Total Scope 2 Emissions : | 34,497.951 | Tonnes of CO ₂ -e |
| Total Scope 3 Emissions : | 141.387 | Tonnes of CO ₂ -e |
| Total other GHG Offsets / Removals : | 530.030 | Tonnes of CO ₂ -e |
| Total Net GHG Emissions : | 34,859.313 | Tonnes of CO₂-e |

GHG Performance in Ratio Indicator :

| | |
|-------|---|
| 1.309 | Tonnes of CO ₂ -e / person |
| 0.105 | Tonnes of CO ₂ -e / m ² |



5. *Campus Greening*

FMO realizes the value of greening and always tries every effort in improving and maintaining a green environment for the enjoyment of the University students, faculty, staff and visitors by carrying out regular maintenance and improvement work.

Improvement

There have more than 60 landscape improvement works were done throughout the campus.



5. *Campus Greening*

Event Support

Potted plants were provided to enrich atmosphere for events.



Chinese New Year Staff Party 2018 on 5/F in LAU



19/F in LAU

5. *Campus Greening*

GROW (Green Roofs over Walls)

GROW was initiated with an award from the CityU Campus Sustainability Fund. It is a cross-disciplinary project that introduces Permaculture to CityU, including the development of green zones on rooftops and related courses.

Merging various disciplines and modalities, Permaculture develops sustainable forms of human communities by following models of naturally occurring ecosystems. Equal emphasis is given to the integration of ethical principles and sustainable design.



6. *Sustainability in Residential Estates*

Energy Conservation

Energy efficiency measure continued to implement in residential quarters. A total of about 2,050 kWh of energy was saved by reducing unnecessary lightings in rear staircases.

Food Waste Reduction and Recycling

Mini food decomposers were used to recycle food waste generated from residential quarters in Tak Chee Yuen (TCY) and Nam Shan Yuen (NSY) into fertilizer to conserve our limited landfills. Over 2,500 kg of food waste was collected and recycled into 65 kg of fertilizer which had been applied on campus landscaping areas.



Mini food decomposers used in NSY for recycling into fertilizer

6. *Sustainability in Residential Estates*

The University participated in the Lunar Year- end Recycling Scheme (送舊回收迎新歲) organized by Environmental Protection Department (EPD) of HKSAR Government and invited residents in TCY, NSY and Academic Exchange Building (AEB) to donate their unwanted domestic electrical appliances for reuse. A total of 31 items were donated by the residents.



Lunar Year-end Recycling Scheme



6. Sustainability in Residential Estates

In response to the Municipal Solid Waste Charging Scheme is going to implement in the second half of 2020 at the earliest. Student Residence Office (SRO) reinforced their measures to recycle, especially in times of check-out when large bulk of used beddings were being disposed. So far, none of the society/government authority in Hong Kong can collect those used beddings and SRO has searched for different channels to minimize the solid waste collected. Po Leung Kuk is our partner to collect check-out items last year and this year. The following photos demonstrated where and how our check-out items has gone and its benefit to the community.



6. Sustainability in Residential Estates

Withdrawal Recycle Day with Po Leung Kuk on 20 May 2017

- Instead of dumping check-out items disposed by residents into landfill during check-out, co-organized by Sham Shui Po Green Station of Po Leung Kuk, a Withdrawal Recycling Event was organized in all 11 undergraduate halls to collect Clothes, Daily Necessities, Books and Electrical Appliances inside the Emergency Room of all 11 halls from 8 – 22 May 2017.
- A Withdrawal Recycling Day was organized on 20 May 2017 in Multi-Function Hall B and Open Area opposite to Canteen to collect student recycling items, a Speedy Fashion Exhibition and a Free natural anti-mosquito brick workshop.
- The event was welcomed by residents and the items were collected to benefit Sham Shui Po residents-in-need.



緣在深水埗
Student Residence On City University of Hong Kong
Withdrawal Recycling Day

Aims of Activities :
- To stimulate students in thinking of the difference between NEED from WANT though the exhibition and recycling services.
- To encourage students carrying out "Use Less Waste Less" in to practice.

Date: 20th May 2017 (Saturday)
Time: 1:00PM-4:00PM
Place: Hall B and Open area opposite to Canteen
Contents : Collect student recycling items (Clothes, Daily Necessities, Electric appliance), Speedy fashion exhibition.

In addition:
Free natural anti-mosquito brick workshop

Introduction to "SSPCGS"
The Sham Shui Po Community Green Station, which is the fifth CGS project and operated by Po Leung Kuk. SSPCGS encourages the public to practice waste reduction and clean recycling in building up a green community together.

PO LEUNG KUK
Sham Shui Po Community Green Station

Tel: 2778 2330 (temporary)
Email: sspcgs@poleungkuk.org.hk
Address: Between Yen Chow Street and Tonkin Street underneath the West Kowloon Corridor

緣在深水埗
Student Residence On City University of Hong Kong
Co-organized
Join it Withdrawal Recycling Day

Aims of Activities :
To promote green concept of Reuse, Reduce, Recycling and practices into daily life.

Contents (Students can bring their recycling items into 3 recycling bins which prepared by SSPCGS, during withdrawal recycling period.)
★Clothes ★Daily Necessities

Type of recycling items:
✓ Clothes, Daily Necessities, Book (University text book), Stationery, Kitchenware, Plant, Electric appliance, Computer.
✗ Personal items (Can't recycle): Night clothes, Underwear, bedroom items.

Location of Recycling bins: All blocks (No.1-10 blocks) Residence G/F backup room.
Withdrawal Recycling Periods: 8th May 2017-22nd May 2017

The way of Recycling items ???
All recycling items will keep for people in need on "SSPCGS", free market, Programme aims to promote "Use less, Waste less" and extend the life of recycling items.

Introduction of "SSPCGS"
The Sham Shui Po Community Green Station, which is the fifth CGS project and operated by Po Leung Kuk. The "SSPCGS" provide the local community with a collection service for various recyclables and environmental education programmes to promote the message of "Use Less, Waste Less" and "Clean Recycling" at the community level.

PO LEUNG KUK
Sham Shui Po Community Green Station

Tel: 2778 2330 (temporary)
Email: sspcgs@poleungkuk.org.hk
Address: Between Yen Chow Street and Tonkin Street, underneath the West Kowloon Corridor

ResLink of SRO, CityU
5月23日

Residents participated at the "Withdrawal Recycling Day" last Saturday to recycle their unwanted items to people in need. This event was co-organised by the SRO, Po Leung Kuk and the Environmental Protection Department.

學生宿舍處聯同保良局及環境保護署於上星期六共同組織了宿舍回收日，不少宿生響應環保，參與回收。

#cityuhall City University of Hong Kong #recycling #reduce #reuse #環保 #回收 緣在深水埗 Sham Shui Po Community Green Station

Withdrawal Recycling day—Say No to Waste / 宿舍回收日—對浪費說不
(按此看中文版) "Can anyone tell me why I have so much stuff?" I believe...

RESLINKSROCITYU.COM

7. *Sustainable Activities and Collaborations*

Initiatives

Campus Sustainability Fund



The Campus Sustainability Fund (CSF) supports projects that contribute to the University's commitment to integrate sustainability into its teaching, research, governance and campus operations through:

- Educating the campus community on the nature of sustainability challenges
- Researching solutions to sustainability challenges
- Modelling good sustainability practices by operating the campus with minimal resource consumption and waste
- Collaborating with the government, private sector, NGOs and other community stakeholders to tackle these sustainability challenges

Projects should seek to transform processes and/or engage the campus community with a view to changing attitudes and behaviours that will result in long-term impact on campus sustainability outcomes. The outputs of projects may include reports, artistic works, multi-media materials and demonstration structures, as well as other forms as appropriate.

In 2018, a total of 17 eligible proposals were received. After a careful review by an Assessment Panel, 10 projects were approved. The approved projects include:

1. Cultivating Students' Understanding of Environmental Data: Sustaining Augmented Reality Trees against Live Weather and Air Quality Data in a Mobile
2. Development of the Methodologies and Stakeholder Collaboration for Integrated Sustainability
3. Emission and Formation of Particulate Air Pollutants from On-campus Catering Facilities
4. Investigation on the Energy Performance of the HVAC System in Lau Ming Wai Academic Building (LAU) at CityU – Stage II
5. Multi-functional Cellulose-based Composite Materials from Campus Waste Paper
6. Solar-absorbing Building Facade Performance Demonstration
7. Sustainable CityU: Developing a Practice Platform for Sustainability-related Courses
8. Sustainability Tour
9. The CityU Sustainability Debate Series
10. The Overview Effect



7. Sustainable Activities and Collaborations

Sustainability Day

CityU held a Campus Sustainability Day (S-Day) on 22 January 2018. It was a whole day event, which aimed to foster sustainability awareness of staff, students and the school sector. A number of activities were organized, including seminar and talks, WWF's solar mobile café, a Sustainability Bazaar, DIY workshops and a Sustainability Hunt, to explore the theme of "Innovations for a Sustainable Future".

Sustainability Day (Kick-off Ceremony and Seminar)



City University of Hong Kong
Campus Sustainability Day
"Innovations for a Sustainable Future"
22 January 2018



| Kick-off Ceremony and Seminar | Sustainability Bazaar | Talks | Sustainability Hunt |
|--|---|--|--|
| Urban Sustainability Challenges Speakers: Prof Rob Melnick, ASU Prof Yeh Shin-cheng, NTNU Discussant: Prof Chak Chan, CityU 10:30~11:30 LT-10, Yeung Kin Man Academic Building | Come to buy eco-friendly products, join DIY workshop and enjoy FREE coffee produced by solar energy! 11:00~17:00 Wong's International Terrace B Sign-up here | Hong Kong as a Solarizing Smart City 13:00~14:00 The Story of Taiwan Green Island Elephant 15:30~16:30 Wong's International Terrace B Briefing Session for Campus Sustainability Fund 2018 and the GCSO 15:15~16:30 Y5-203, Yeung Kin Man Academic Building | Join the game to discover CityU sustainability and win Ocean Park Tickets with a closer encounter with dolphins! 16:00~17:00 CityU Campus Sign-up here For enquiry: sustain@cityu.edu.hk |

Organizers: CityU Sustainability, Facilities Management Office, Supporting Organizations: WWF, etc.

7. Sustainable Activities and Collaborations

Sustainability Day (Sustainability Bazaar)



Sustainability Day (Talks and Sustainability Hunt)



7. Sustainable Activities and Collaborations

Green Living @ CityU

“Green Living @ CityU” was held from 16 to 22 March 2018, which aimed to foster sustainability awareness of staff and students in CityU and the school sector and to promote living style in a sustainable way. An array of infotaining activities, including a kick-off ceremony, exhibitions, workshops (making chocolate balls, puddings), food tasting (taste beverage and salads made from organic vegetables, smoothie ride, taste smoothie without using your hands) and talks on organic farming and vegetable foods, were organized.

Green Living @ CityU (Kick-off Ceremony)



Green Living @ CityU (Smoothie ride)



7. Sustainable Activities and Collaborations

Green Living @ CityU – (Workshops)



Green Living @ CityU (Face-to-face about Veggie)



Green Living @ CityU – (Organic food tasting and organic farming)



7. Sustainable Activities and Collaborations

Green O'camp

Provided training to EC members of students union and societies on how to organize O'camp in a green way.

CityU 2018 Green O'camp

- Waste Arrangement
 - Provide facilities for waste recycling / Choose camp site equipped with waste recycling facilities
 - Recycle waste as far as possible



CityU 2018 Green O'camp

- Promotion Green O'camp
 - Maximize the use of electronic means for promotion such as email, facebook, WhatsApp groups etc.
- Use of Paper
 - Reduce / avoid paper / posters promotion
 - Reduce / Avoid / No disposable paper utensils



CityU 2018 Green O'camp

- Use of Water
 - Avoid water games



| 行數 | Green O'Camp 綠色行動 |
|--------|-----------------------------------|
| 減少紙張消耗 | 1. 避免紙張 2. 避免紙張印刷 3. 避免紙張印刷 |
| 餐食 | 4. 避免紙張 5. 避免紙張印刷 6. 避免紙張印刷 |
| | 7. 避免紙張印刷 8. 避免紙張印刷 |

CityU 2018 Green O'camp

- Food Arrangement
 - Order as much as need
 - Encourage vegetables / organic food, e.g. etc.
 - Offer take away arrangement or donate unconsumed food, if feasible
- Souvenirs
 - Reduce / No / Environmentally-friendly souvenirs
 - Reduce / No, especially sponsor of bottled water



CityU 2018 Green O'camp

- Use of Plastics
 - Reduce / Avoid / No disposable plastic utensils
 - Encourage no straws
 - Bring own mugs instead of use bottled water / drinks

No Straw Month (12 March - 11 April 2018)

| | 12 March - 18 March | 12 March - 11 April |
|-------------------------|---------------------|---------------------|
| Number of Straws Used | 5720 | 22499 |
| Normal Usage/Period | 25495 | 112906 |
| Savings (no. of straws) | 19775 | 90407 |
| Savings (%) | 77.56% | 80.07% |

7. Sustainable Activities and Collaborations

No Straw Activities

CityU commenced its “No Straw Weekend” on campus starting from 8 June 2018 following our existing “No Straw Sunday”, the joint-universities campaign of “UNify: Skip the Straw” in March 2018 and CityU “No Straw Month” (12 March to 11 April 2018) initiatives. June 8th is also the “No Straw Day” proposed by the Ocean Park Conservation Foundation, and CityU is a supporting organization of this meaning event. At the CityU “No Straw Month”, a total of 90,407 straws were saved, equivalent to 80% of the usual consumption. The new “No Straw Weekend” followed the same practice of the “No Straw Month” that plastic straws were not be given to customers at the campus catering outlets unless specifically requested on Friday, Saturday, Sunday and public holidays.

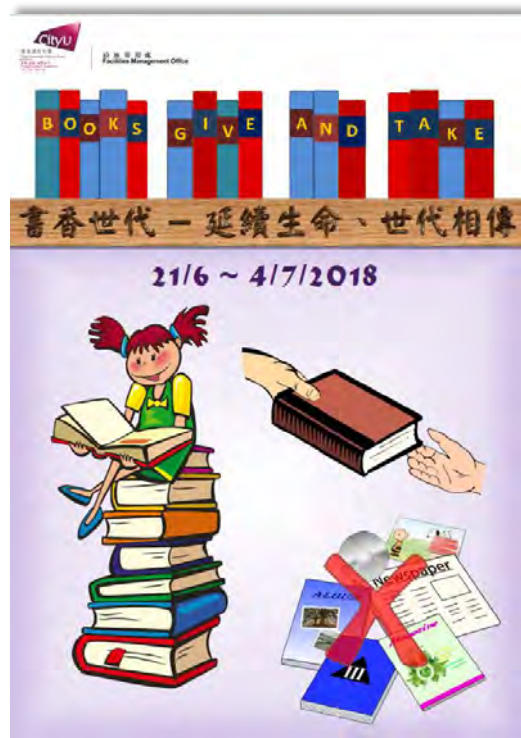


7. Sustainable Activities and Collaborations

Books Give and Take

Organized a “Books Give and Take 書香世代 - 延續生命、世代相傳” campaign from 21 June to 4 July 2018. Due to overwhelming response, the event was extended to 31 July 2018. The purpose of the campaign was to engage the City Community to share precious reading materials to nurture an academical, reading, sustainable and caring culture.

Two carts were placed at the Yellow Zone on U-concourse, YEUNG. CityU community members and public were welcome to leave or pick up books from the carts. There was no loan period.



7. Sustainable Activities and Collaborations

Global Consortium for Sustainability Outcomes (GCSO)

CityU joined the GCSO in January 2018 to work with overseas institutions to collaborate on sustainability outcome. CityU members can apply for the GCSO seed fund to collaborate with overseas universities to co-develop solutions to sustainability challenges, create innovative approaches to teaching sustainability and collaborate to compete internationally for research funding awards.



Chinese New Year Flowers and Organic Farming

Organized a talk on Chinese New Year flowers and organic farming “新春年花及有機種植” before Chinese New Year 2018. The purpose of the talk was to share the City Community the idea of organic farming and a green living style.

GCSO Projects
(seed grants)

- **Purpose:** Test and implement solutions
- **Requirements**
 - Collaboration of 2+ members
 - Test or apply a solution to a sustainability problem
 - Certify that an “implementation agent” has agreed to utilize the solution
 - Seek additional funding for scaling
 - Answer this question—
What will become more sustainable as a result of this project?

GCSO

新春年花及有機種植

日期：二零一八年一月二十九日 (星期一)
時間：中午十二時四十分至下午二時
地點：專業進修學院演講廳, 學術交流大樓
講者：黃如榮先生 - 歐羅有機農場負責人, 城大校友
語言：廣東話
對象：城大教職員及學生
座位：120 位 (不須報名)
查詢電話：3442 8833

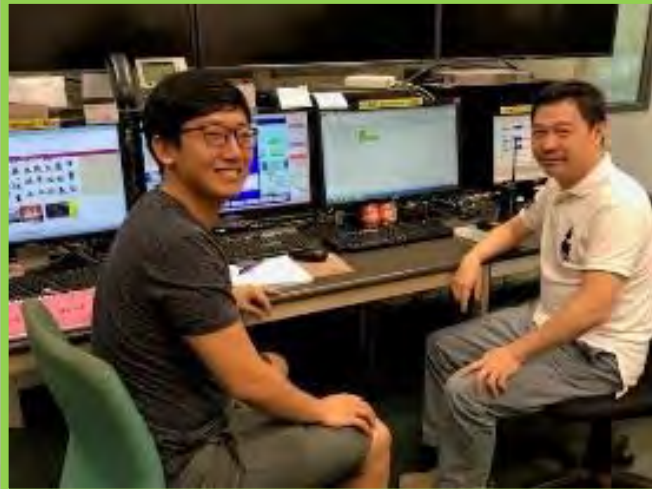
講座內容：
(一) 新春年花品種及護理
(二) 有機種植簡介

CityU
設施管理處
Facilities Management Office

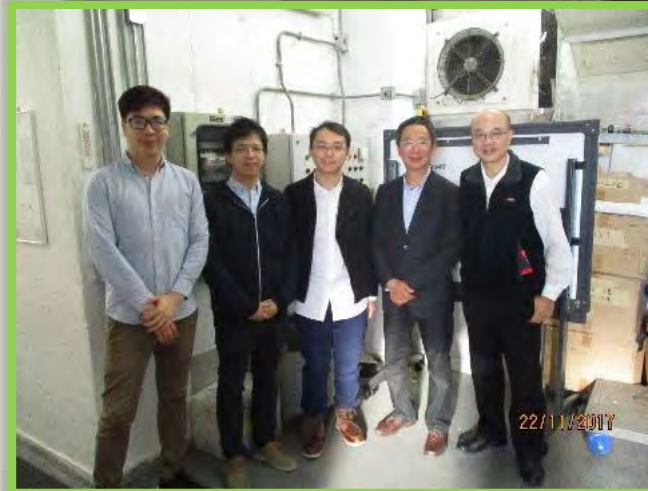
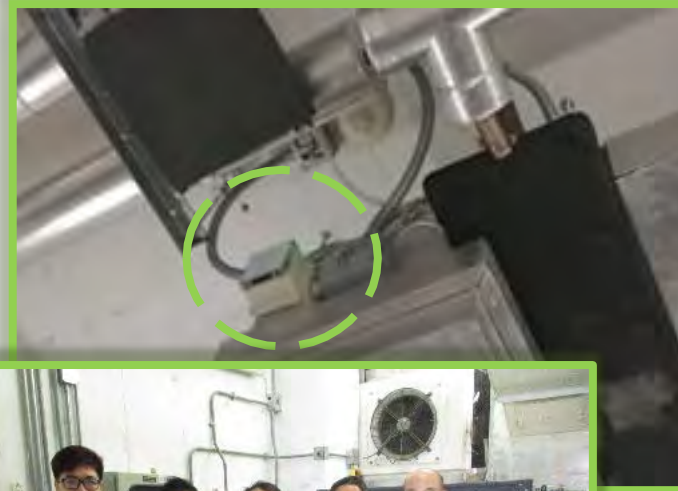
7. *Sustainable Activities and Collaborations*

Academic Supports

Provided energy consumption and HVAC operational data for students from School of Energy and Environment.



Installed Energy Saver for FCU at control based management (CBM) room (LI) to facilitate video taking by Communications and Public Relations Office (CPRO) for Division of Building Science and Technology (BST) PhD students.



7. Sustainable Activities and Collaborations

Energy Saving Charter

The University has signed up to the “Energy-Saving Charter 2018”, launched by the Environment Bureau (ENB), and Electrical and Mechanical Services Department (EMSD), to encourage the CityU community to save energy. We can help to support the Charter by:

- setting the indoor temperature of offices and classrooms to 24-26°C
- switching off electrical appliances and systems, e.g. lights, computers, copiers, air-conditioners, etc. when not in use
- procuring energy-efficient electrical appliances and systems (such as those with Grade 1 energy labels)
- promoting and sharing energy-saving tips.

Charter on External Lighting

CityU signed the Charter on External Lighting and got the Platinum Award. The Charter launched by ENB in 2016. Owners of and responsible persons for external lighting installations were invited to switch off lighting installations of decorative, promotional or advertising purposes which affect the outdoor environment during the preset time (i.e. 11 p.m. or midnight to 7 a.m. on the following day).



7. Sustainable Activities and Collaborations

Hong Kong No Air Con Night 2017

The captioned campaign organized by the Green Sense held on 29 September 2017 was a 12-hour-long air-conditioning out action starting from 7:00 pm 29 September 2017 to 7:00 am 30 September 2017 to encourage the whole society to save energy.

CityU actively supported the event by raising the indoor temperature in some communal areas on CityU campus (lecture theatres, Library, Hu Fa Kuang Sports Centre, canteens, Wei Hing Theatre and public areas) to 25°C to lower power consumption.



WWF Earth Hour 2018

CityU supported, as always, the captioned campaign held on 24 March 2018 by turning off non-essential lights in corridors, open / roof gardens, carparks and / or external public areas at YEUNG, Administration Buildings, BOC, LI, LAU and CMC for one hour from 8:30 pm to 9:30 pm.

Moreover, City Announcement Portals (CAPs) were issued to all staff and students to encourage them and their families to support this meaningful event by turning off lights in office and at home with the aim to arouse awareness on global warming, energy saving, and reducing emission of pollutants and greenhouse gases.



7. Sustainable Activities and Collaborations

Lai See Packets Recycling

CityU continued to support the “Lai See Reuse and Recycling Program” organized by Greeners Action to collect used Lai See packets from CMC, LAU, LI, YEUNG, Student Residence, TCY, NSY and AEB during the period from 27 February 2018 to 19 March 2018. 135 kg of Lai See packets were collected for reuse.

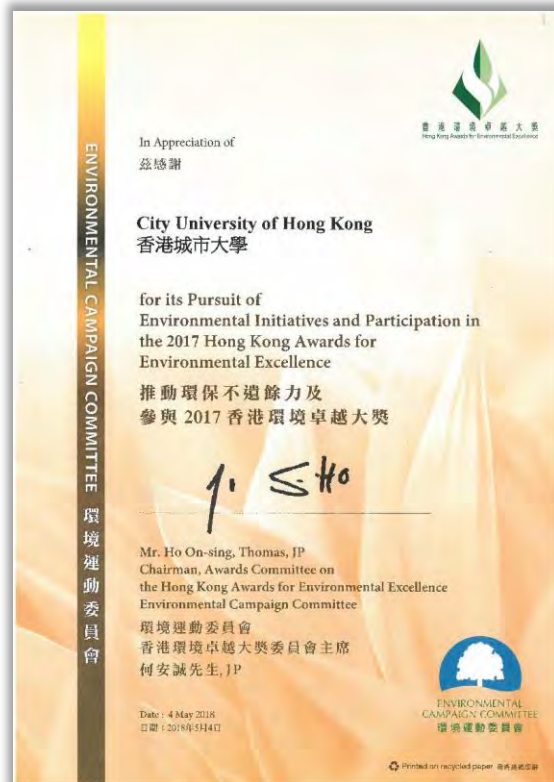


Mooncakes Collection and Donation

CityU joined the Mooncakes collection programme that organized by Food Grace (食德好). The collected mooncakes were distributed to those in need on the day of Mid-autumn Festival.



8. Recognitions and Awards



2017 Hong Kong Awards for Environmental Excellence



Commendation Scheme on Source Separation of Commercial and Industrial Waste



8. *Recognitions and Awards*

Waste Electrical and Electronic Equipment Recycling Collection Service



No Straw Friday



8. *Recognitions and Awards*

2018 - Hong Kong Green Organisation Certification – Wastewi\$e Certificate



Hong Kong Green Organisation Certification - Energywi\$e Certificate



9. *Looking Ahead*

The University continues to seek out new ways to develop and enhance the university's social and environmental impact while incorporating student learning and development in fields that contribute to global well-being.

At the collegiate level, we will continue to collaborate among our member universities to promote sustainable development. We will participate in joint University activities named as UNIFY and will focus at “no bottled water” and “no straw” to reduce use of disposable items especially plastics.

At the societal level, to support the Government's initiatives in reducing waste disposal and prepare for the Municipal Solid Waste Charging Scheme, we will conduct a Municipal Solid Waste Charging Trial on campus and organize green footprint pledge on “Bottle Water Free Campus” and “Green Event Planning”.

Over this coming year we look forward to continue working with departments, students, and faculty; peer institutions; and our surrounding community to collectively progress the University's commitment to social and environmental responsibility.



香港城市大學
City University of Hong Kong

End of Report

專業 創新 胸懷全球
Professional · Creative
For The World

Facilities Management Office
<http://www.cityu.edu.hk/fmo/>

