

Environmental Report

2018-2019



香港城市大學
City University of Hong Kong

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Message from Director

Facilities Management Office (FMO), jointly with Campus Development Office (CDO), are the central agents in City University of Hong Kong for coordination of sustainability activities, waste management and energy conservation on campus. We are committed to conserving the environment in a sustainable way.

This Environmental Report covers the period from 1 July 2018 to 30 June 2019. In the year, we have put a lot of effort in waste management, purposely in early preparation for the Municipal Solid Waste Charging Scheme that is soon to be implemented by the HKSAR Government. A large scale university-wide waste survey was conducted so as to obtain the solid waste spectrum and to educate our cleaners on waste minimization. On the other hand, tremendous efforts have been devoted to education and promotion. The Green Footprint Pledge which included the Bottled Water Free Campus Pledge and Green Event Pledge was launched in September 2018. Two units of Reverse Vending Machines utilizing advanced technology were introduced to attract young generations in the recycling of spent PET bottles.

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 144 tonnes of solid waste from landfills.
- Recycled over 132 tonnes of food waste.

Energy Management

- Consumed 65.2 million kWh electrical energy.

Water Management

- 3,640 m³ of grey water recycled for irrigation, which represents 6.7% of total water consumption for irrigation from water basin and condensate water from air-conditioning on the campus for irrigation.
- 2,983 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 17 years.
- Awarded the HKAEE Certificate of Merit that organized by the Environmental Campaign Committee of HKSAR Government.
- Awarded the Certificate of Merit 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

CityU MSW Trial 2018

Further to the MSW Trial conducted in 2017, FMO conducted a University wide CityU MSW Trial 2018 from 1 September 2018 to 31 December 2018. This trial covered all buildings on campus which included:

- Yeung Kin Man Academic Building (YEUNG)
- Cheng Yick-chi Building (CYC, included in YEUNG)
- Administration Building (included in YEUNG)
- Fong Yun-wah Building (FYW, included in YEUNG)
- Mong Man-wai Building (MMW, included in YEUNG)
- To Yuen Building (TYB)
- Bank of China (Hong Kong) Complex (BOC)
- Lau Ming Wai Academic Building (LAU)
- Li Dak Sum Yip Yio Chin Academic Building (LI)
- Run Run Shaw Creative Media Centre (CMC)



Full pack of 75L, 100L plastic garbage bags



I-pod to tap the barcode of each garbage bag at refuse collection station of YEUNG, LAU and CMC



Plastic garbage bags posted with barcode label and zoning



After tapping of the barcodes, the garbage bags are put into the 660L refuse bins for disposal

1. Waste Management

CityU MSW Trial 2018

During the four months trial period, all areas of the buildings were divided into 76 zones for collection and measurement of waste in volume by cleaners daily. The quantity of wastes measured were reported and posted on our website monthly. From the exercise, an average of 800,000 litre of municipal solid waste was generated on campus monthly. Based on the assumption that HK\$0.11 would be charged for 1 litre of waste, an estimated charge at HK\$89,000 per month would be required. Detail data was shown in the tables on page 7.

Through the exercise:

- Cleaners had better concept of waste charging and full use of plastic garbage bags in collecting the waste.
- Staff, students and University Community have been educated to reduce waste and separation of waste for more re-cycling.
- Recyclables still found in waste bins and measures to increase recycling rate are required.
- Total volume of hand paper towels collected inside toilets was 973,860 litre which constituted 30.4% hand paper towels of total waste have been collected inside toilets. Study on use of electric hand dryers to replace hand paper towels is suggested.



Click [here](#) to read
"Tips on Waste Reduction"

1. Waste Management

CityU MSW Trial 2018 – Results

Building	Month	Volume (Litre)
YEUNG	SEP	365,320
	OCT	494,960
	NOV	498,275
	DEC	385,775
		1,744,330
LI	SEP	85,120
	OCT	133,320
	NOV	137,600
	DEC	87,375
		443,415
LAU	SEP	107,965
	OCT	134,745
	NOV	151,700
	DEC	115,625
		510,035

Building	Month	Volume (Litre)
BOC	SEP	65,565
	OCT	79,065
	NOV	89,100
	DEC	68,600
		302,330
TYB	SEP	12,720
	OCT	15,720
	NOV	15,750
	DEC	15,200
		59,390
CMC	SEP	39,370
	OCT	30,875
	NOV	38,750
	DEC	38,500
		147,495

From the data of the above tables, an average of 800,000 litre of municipal solid waste was generated on campus monthly. Based on the assumption that HK\$0.11 would be charged for 1 litre of waste, an estimated charge at HK\$89,000 per month would be required.

1. Waste Management

Rethink and Reduce

CityU has signed and joined the Green Event Pledge that organized by EPD in September 2018. We have adopted a series of measures to enhance provisions for events in an environmental friendly approach.

Continuing the practice from previous years, materials used in events like vinyl backdrop, wooden and foam boards, banners, etc. have been given “second life” in which they were used on floors or in lifts as protective materials against scratches and bumps during construction and deliveries. As another step forward to reduce use of single-use plastics, FMO took the initiative to provide a one-stop-shop service in providing reusable cutlery sets, including wheat-straw cups, plates and sporks, for use in events. Not only that, FMO also provided disinfection of the utensils before the event and cleaning of them after the event. Water dispensers can also be arranged to discourage the use of bottled water.



Wheat Straw Cups with Holders



Wheat Straw Plate and Spork



Water Dispenser



Disinfection of Cutlery Sets before Use

1. Waste Management

Reuse



Branches and stems from pruning and felling were collected and shredded. The wood chips generated were used in landscape areas for mulching purpose. About 160kg mulches were produced during the reporting period.

- Reused existing water cooling package type air-conditioner dismantled from CityU's premises at 22/F & 23/F and installed at 16/F and 21/F to serve new pantry and Hub room.
- Reused existing LED lighting panel left by ex-tenant at 16/F and 17/F with new installed occupancy sensor to reduce construction waste.



1. Waste Management

Reuse

- 1) Modified about 20 nos. damaged 660 plastic waste bins to smaller bins for reuse.
- 2) Reused about 30 nos. overhead door closers dismantled from renovation projects.
- 3) Reused about 80-90 cylinders of lockset in YEUNG.



1. Waste Management

Recycle

	Year 2017 - 18	Year 2018 - 19	Difference	%
Waste paper recycled (kg)	113,672	117,885	4,123	3.71%
Aluminum cans recycled (kg)	620	627	7	1.13%
Plastic bottles recycled (kg)	1,337	1276	-61	-4.56%
Printer cartridges recycled (kg)	422	344	-78	-18.48%
Compact discs recycled (kg)	33	145	112	339.39%
Mercury-containing fluorescent tubes and lamps recycled (kg)	16,200	16,400	200	1.23%
Green waste and plant trimmings reused (kg)	234	156	-78	-33.33%
Glass bottles recycled (kg)	8,743	7,264	-1,479	-16.92%
Rechargeable batteries recycled (kg)	1,000	0	-1,000	-100%
Used Lai See packets (kg)	135	200	65	48.15%
No. of plastic straws saved (pieces)	181,767	1,105,815	924,048	508.37%
Total municipal solid waste (kg)	1,247,160	1,260,868	13,708	1.10%

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

Recyclables:

144 tonnes

MSW:

1,260 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 2017 – 18	Year 2018 – 19
Food waste collected and recycled for making fish / animal feed or fertilizer (kg)	209,486	132,118

Food waste: 132 tonnes

1. Waste Management

Hazardous Waste

Hazardous wastes disposed of in year 2017-2018 and year 2018-2019:

	Year 2017 – 18	Year 2018 – 19
Liquid Chemical Waste # (L)	13,375	16,412
Solid Chemical Waste # (kg)	16,500	17,026
Clinical Waste * (kg)	2,469	2,119
Liquid Radioactive Waste (L)	22.5	6.5
Solid Radioactive Waste (kg)	6	7

- 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

The University conducted in-house IAQ measurements for different areas on campus in past years. This year, a consultant was appointed to conduct a U-wide IAQ measurements for seven buildings with central air-conditioning supply on campus with the aim to obtain IAQ certification. The seven buildings are: Yeung Kin Man Academic Building (YEUNG), Li Dak Sum Yip Yio Chin Academic Building (LI), Lau Ming Wai Academic Building (LAU), Run Run Shaw Creative Media Centre (CMC), Cheng Yick-chi Building (CYC), Administration Building (Admin Bldg), Fong Yun-wah Building (FYW), Mong Man-wai Building (MMW). All buildings have obtained "Good Class" certification.



2. Air Quality Management

Indoor Air Quality - IAQ improvement in YEUNG

- **Replacement of AHUs, PAUs and FCUs** with increased ventilation rate to improve the air quality of lecture theatres, student canteen, offices, function rooms and library.
- Replaced the aged exhaust ducts, duct risers and extraction fans to enhance indoor air quality of toilets.



Replacement of New Stainless Steel Air Duct riser for Toilets



Replacement of PAUs

3. Water Management

Water Consumption and Recycling

Compared with year 2017-2018, the annual fresh water consumption increased. The following particulars were observed:

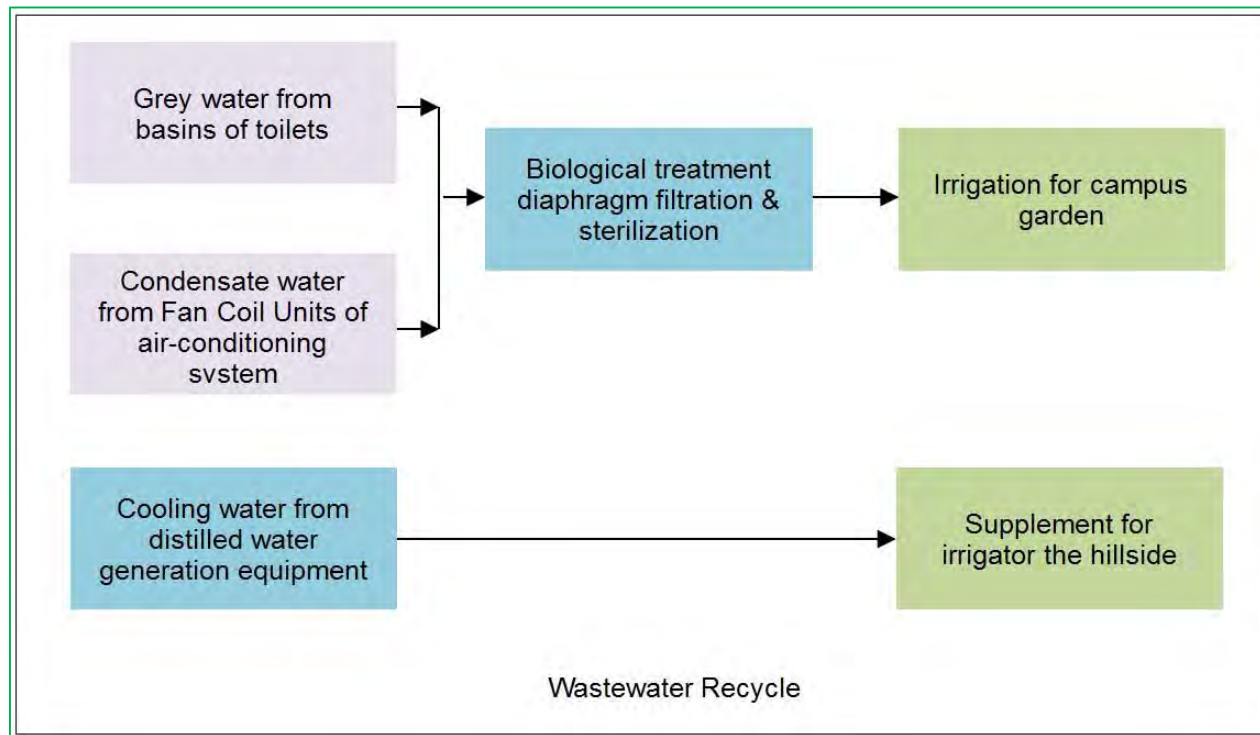
- a) Portable water consumption increased over 30%. This might be due to various reasons:
 - move in of new laboratories
 - no longer use the waterless urinal system which lead to frequent drainage blockage
- b) The overall cleansing and irrigation water consumption increased 12%.
- c) The water consumption for cooling tower of air-condition system increased 9%, which shall be due to additional air-conditioning load for new laboratories.
- d) The water consumption for swimming pool reduced 80% because the opening of swimming pool was deferred to August 2019. Only water replenishment for swimming pool was required in 2018-2019.

	2017-2018	2018-2019	Difference	%
Potable (1000m ³)	56.48	75.52	19.04	33.71
Cleansing & Irrigation (1000m ³)	48.38	54.11	5.73	11.84
A/C (1000m ³)	111.08	120.74	9.66	8.70
Swim (1000m ³)	2.43	0.47	-1.96	-80.66
Grey water recycled (1000m ³)	2.18	3.64	1.46	66.97
Rain water harvested (1000m ³)	2.7	2.98	0.28	10.37
Under ground water used (1000m ³)	0	0	0	0

3. Water Management

Recycling of Grey Water

During the year 2018-2019, 3,640 m³ grey water has been recycled., which represented 6.7% of the total consumption for irrigation from water basin and condensate water from air-conditioning on the campus for irrigation. Furthermore, 2,983 m³ of rain water has been collected from the rain harvest tank.



4. *Energy Management*

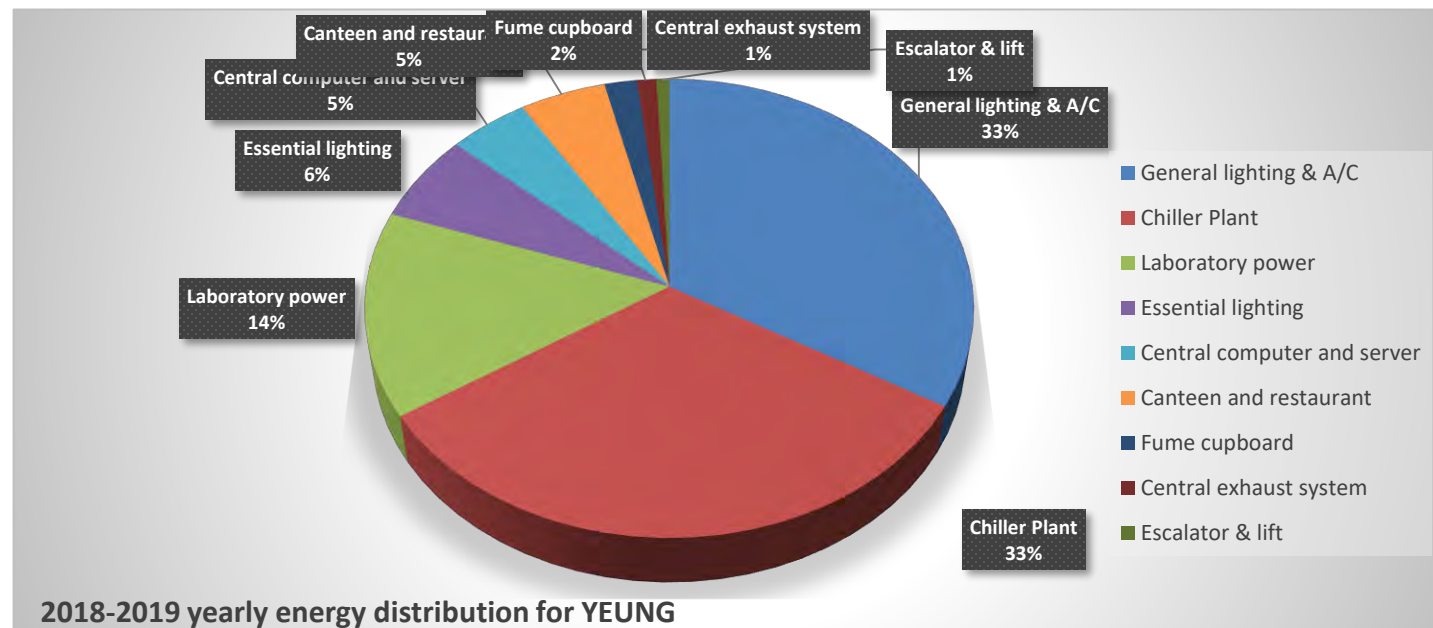
Energy Consumption

The total annual electricity consumption for 2018-2019 was 65.2 million kWh, increased 2.3 million kWh. Compared with year 2017-2018, the annual electrical consumption increased by 4%. There were new laboratories and more offices move into these buildings over the year which increased the demand for air conditioning and electricity. The energy consumption in YEUNG contributed to 71.5% of total energy consumption of various buildings on campus (please see the distribution of energy consumption on page 19).

Building	2017 / 2018 (mil kWh)	2018 / 2019 (mil kWh)	Difference (mil kWh)	%
YEUNG	45.4	46.6	1.2	3%
LI	5.8	6.2	0.4	7%
LAU	6.93	7.4	0.5	7%
CMC	4.8	5.0	0.2	4%
Total	62.9	65.2	2.3	4%

4. Energy Management

Energy Consumption - YEUNG



The distribution of energy utilization in YEUNG



• General lighting & AC	33%
• Chiller plant	33%
• Laboratory power	14%
• Essential lighting	6%
• Central computer and server	5%
• Canteen and restaurant	5%
• Fume cupboard	2%
• Central exhaust system	1%
• Escalator & lift	1%

4. *Energy Management*

Energy Saving Initiatives



Three EV charging stations (32A) installed on campus have been put into operation since 1 September 2018. Two of them are located in YEUNG carpark and one in BOC carpark.

The new EV charging stations are operated by a service provider. Staff and students who want to use the EV charging service are required to apply for memberships in advance with the service provider. Account users can use the charging service conveniently by means of mobile apps and RFID cards.



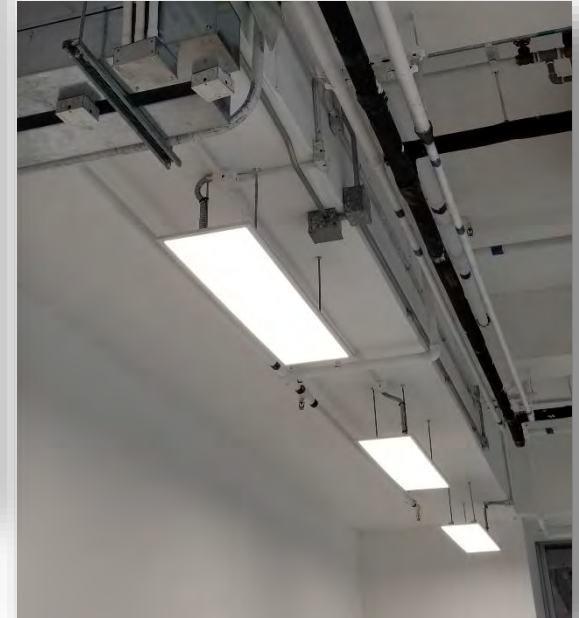
4. *Energy Management*

Energy Saving Initiatives

- Energy Saving Feature adopted in the renovation work at Monterey Plaza 22/F and 23/F:
 - ❖ Occupancy sensor to trigger local lighting circuit and air-conditioning circuit.
 - ❖ Localized zone control circuit with switches to control on/off of individual group of lighting circuit and air-conditioning circuit.
 - ❖ Programmable on/off and dimmer control for lighting for communal areas.
 - ❖ Variable speed drive control used for PAU to enhance operation efficiency.
- Use of LED lighting panel for new renovation work at Monterey Plaza 21/F to achieve desired lighting lux level while minimizing electricity consumption with occupancy sensor.
- Use of LED lighting panel for new renovation work at project IAS Institution of Advance Study.



Occupancy sensor

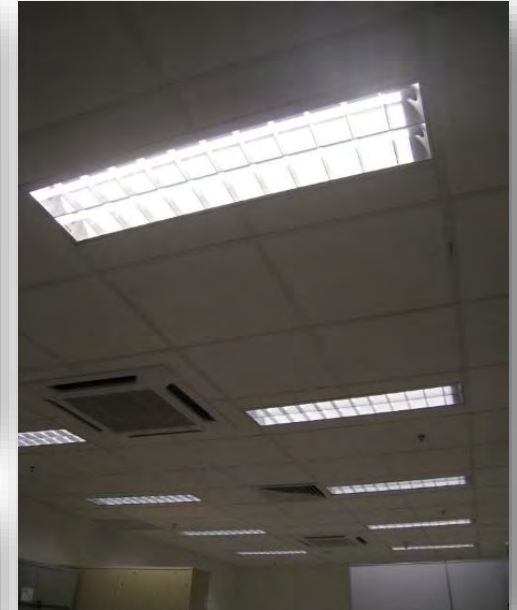


LED lighting panel at Monterey Plaza

4. *Energy Management*

Energy Saving Initiatives

- Application of LED lighting fitting (Light panel with T8 LED tube) in MSE Lab at Yeung 2/F BLUE zone – Lab office A&A work.
- Installation of heat recovery chiller for laboratory project LARU to recover the heat rejected from chilled water circuit as a heating source for humidity control.
- Use of DC motor in fan coil system to save energy consumption in project IAS.



Heat recovery chiller



4. *Energy Management*

Greenhouse Gas Emissions and Removals

According to the Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings in Hong Kong (2010 Edition) that jointly published by EPD and EMSD of the HKSAR Government, CityU conducted a carbon audit and reported the results on yearly basis.

According to the Guidelines, the reporting boundary is classified into Scope 1, Scope 2 and Scope 3, while Scope 1 and Scope 2 emissions are mandatory, Scope 3 emissions are optional.

- Scope 1 – direct emissions and removals;
- Scope 2 – energy indirect emissions; and
- Scope 3 – other indirect emissions.

The physical boundary of this report includes YEUNG, BOC, LI, LAU, CMC, CYC, Administration Building, FYW, MMW and TYB. The catering outlets located at LI, LAU and CMC are not included. The total GHG emissions in 2018-2019 were 35,000 tones of CO₂-equivalent. There was a 0.6% increase in carbon emissions while compared with 2017-2018. The details were shown in the table on page 24 and in the figure on page 25.

Click [here](#) to read the Guidelines



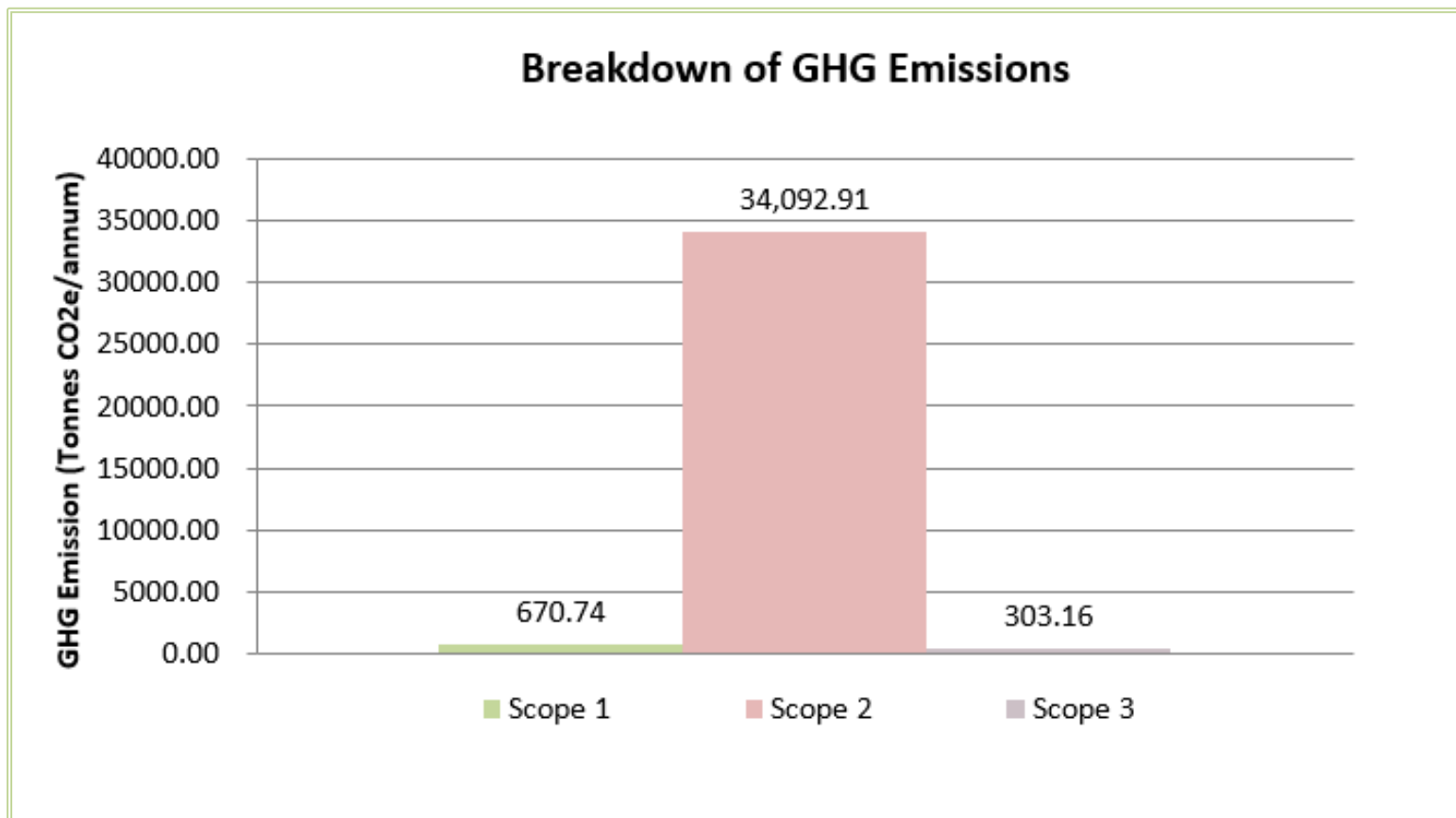
4. *Energy Management*

Greenhouse Gas Emissions and Removals - Results

Total Scope 1 GHG Emissions:	759.18	Tonnes of CO ₂ -equivalent
Total Scope 1 GHG Removals:	88.44	Tonnes of CO ₂ -equivalent
Total Scope 2 GHG Emissions:	34092.91	Tonnes of CO ₂ -equivalent
Total Scope 3 GHG Emissions:	303.16	Tonnes of CO ₂ -equivalent
Total GHG Emissions:	35066.82	Tonnes of CO ₂ -equivalent
Total GHG Emissions of Previous Year:	34859.31	Tonnes of CO ₂ -equivalent
% Change in GHG Emissions compared with Previous Year:	0.60%	
GHG Performance in Ratio Indicator:		
GHG Emissions per floor area:	0.13	In tonnes of CO ₂ -equivalent / m ²
GHG Emissions per floor area of Previous Year:	0.15	In tonnes of CO ₂ -equivalent / m ²
% Change in GHG Emissions per floor area compared with Previous Year:	-12.12%	
GHG Emissions per person:	1.48	In tonnes of CO ₂ -equivalent / person
GHG Emissions per person of Previous Year:	1.31	In tonnes of CO ₂ -equivalent / person
% Change in GHG Emissions per person compared with Previous Year:	13.20%	

4. *Energy Management*

Greenhouse Gas Emissions and Removals - Results



5. *Campus Greening*

Landscape Maintenance and Improvement

Good landscape maintenance is essential to keep a beautiful and pleasant environment for students, staff and visitors. Landscape improvement is to replace any plants in poor condition with new landscape design in terms of combinations of different plant species and planting pattern. More than 50 landscape improvement works have been done on campus and residential quarters.



5. *Campus Greening*

Provision of Potted Plants and Seasonal Flowers for Decoration in Major Events and Festivals

Evergreen plants and seasonal flowers have been provided for major university events (e.g. Congregation) and festivals (e.g. Christmas and Chinese New Year). These potted plants were also placed in common areas on campus for enhancing greener effect.



5. *Campus Greening*

Re-use of Potted Plants and Seasonal Flowers

Evergreen potted plants for events were re-used and kept at nursery on Campus for maintenance. Some of the used seasonal flowers were planted in landscape areas.



Re-use of Potted Plants for Indoor Decoration



Planting of Citrus in Student Residence



Nursery

5. *Campus Greening*

GROW (Green Roofs over Walls)

CityU GROW has applied for the certification of Organic Production for our roof garden on LI. It is a cross-disciplinary project that introduces Permaculture to CityU.



6. Sustainability in Residential Estates

Food Waste Reduction and Recycling

Mini food decomposers have been used to recycle food waste generated in staff quarters into fertilizer to conserve our limited landfills. Over 2,600 kg of food waste has been collected and recycled into 40kg of fertilizer which have been applied in landscape areas on campus.



Mini food decomposer used in staff quarters for recycling into fertilizer

7. Sustainable Activities and Collaborations

Campus Sustainability Tour

Campus Sustainability Tour was a project funded by the Campus Sustainability Fund (CSF). 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



A Campus Sustainability Tour video was produced with the aims to:

- Conceptualize and visualize the achievements and efforts of CityU in the domain of sustainability.
- Promote the campus green features and facilities of the CityU community to external guests.
- Take up social responsibility to further promote sustainability as CityU being a higher tertiary education institution.




7. Sustainable Activities and Collaborations

Global Consortium for Sustainability Outcomes (GCSO)


CityU has joined the GCSO since early 2018. The aims of GCSO are 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. Two projects from CityU have got funding from GCSO. They were:

- Transferring and Scaling Sustainable Local Food Economy Options
- Sustainable Kitchens: A Certification Programme



Sustainable Kitchens: A Certification Programme

PI: Shaohrat S. Chopra
Assistant Professor, School of Energy and Environment

Funded by:  GLOBAL CONSORTIUM FOR SUSTAINABILITY OUTCOMES

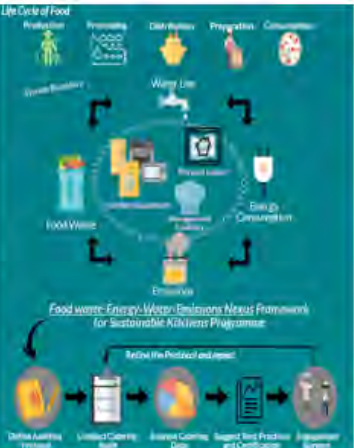
能源及環境學院
SCHOOL OF ENERGY AND ENVIRONMENT

INTRODUCTION

- Globally, the problems of resource consumption, air quality and production of waste in the Food Service sector are significant.
- In Hong Kong, local restaurants are responsible for majority of the energy and water consumption associated with the commercial sector.
- Local Hong Kong restaurants emit cooking fumes that generate Particulate Matter (PM) pollution
- Food waste constitutes nearly 40% of all municipal solid waste in Hong Kong, burdening our already overflowing landfills
- Challenges associated with the Food Service Sector bound to increase with the rise of "eating out" and emergence of "food delivery apps"

OBJECTIVES

- Designing an efficient certification programme based on the Food Waste-Energy-Water-Emissions nexus in commercial kitchens,
- Monitoring and quantitatively assessing parameters during on-site audits,
- Developing site-specific best practices and stakeholder engagement for effective follow-through.




Life Cycle of Food

Production → Processing → Distribution → Preparation → Consumption

Food Waste → Energy → Emissions → Water → Food

Food Waste-Energy-Water-Emissions Nexus Framework for Sustainable Kitchens Programme

Define Audits (Protocol) → Limited Compliance Audit → Advanced Compliance Audit → Support Best Practices and Certification → Monitor



MITIGATE (a) Energy, (b) Water, and (c) GHG EMISSIONS

FOOD-ENERGY-WATER-EMISSIONS (FEWE) NEXUS

EXPECTED RESULTS

IMPROVED kitchen design and operation by identifying environmental-quantified trade-off decisions to managers and designers regarding kitchen operations




QUANTIFY GHG emissions, (a) the kitchen emissions in kg (per food item), (b) GHG from refrigerators and air conditioning, (c) GHG from energy consumption, (d) GHG from transport

RECOMMENDATION (a) GHG emissions, (b) GHG emissions, (c) GHG emissions, (d) GHG emissions

IMPROVE kitchen operations and management related to equipment use and operation

IDENTIFY mechanisms responsible for GHG emissions related to kitchen operations and management related to equipment use and operation

Partnering Organizations:

King's Food

Contact Information:

Email: sschopra@cityu.edu.hk

Office: AC1-B5422

Phone: +(852)-3442-4665

GREEN COMMUNITY KITCHEN

CITYU GOOD FOOD CAFE

城大社區廚房

12:00 - 13:00 | 30 JAN 2019

GOOD FOOD CAFE

3/F, CHENG YICK CHI BUILDING

FOOD DEMONSTRATION BY MS GRACE WONG
[CHEF, GREEN COMMON, VICE-CHAIR OF HONG KONG VEG SOCIETY]

BRING YOUR RECYCLABLE LUNCHBOX

The event is a part of a 'Global Consortium for Sustainability Outcomes' (GCSO) funded project supervised by Dr Yuk Wah Chan

Food is not only something that nourishes our bodies; it is also a means for communication, and for cultural and economic development. Elsewhere, good food movements have sprung up in the last decade to enhance health and environmental awareness in food consumption.

Good food entails a re-examination of the food system and one's own eating habits and food relations: how food is produced; what types of food one consumes; how one treats foods; and whether one produces food waste. Good food urges people to reflect on all these and their impacts on health and the environment.

Thus, good food endorses the ideas of ecofarm and sustainable agriculture; eating green (less meat or no meat diet); consuming more local-produced and seasonal foods; contributing fairly to food producers; ensuring fair access to good food; and promoting minority and disappearing food culture.

Good Food Cafe is the first community kitchen that showcases CityU's engagement in sustainable development through food. Do join us as members and enjoy good food.




Supported by



CityU Facilities Management Office (FMO)

Enquiries: ais.enquiry@cityu.edu.hk



7. Sustainable Activities and Collaborations

CityU Green Footprint



The poster is titled "CityU Green Footprint Pledge" and "CityU Unit Pledge". It is divided into three sections: "Bottled Water Free Campus", "Green Event Planning", and "Individual Pledge". The "Bottled Water Free Campus" section lists four bullet points and includes an illustration of a water pitcher and cups. The "Green Event Planning" section lists four bullet points and includes an illustration of people in a meeting. The "Individual Pledge" section lists one bullet point and includes an illustration of a person holding a water bottle. At the bottom left is a QR code and the text "All are encouraged to Take the Pledge, Ban the Bottle". Logos for CityU and the Facilities Management Office are at the top.

CityU Green Footprint Pledge

CityU Unit Pledge

Bottled Water Free Campus

- * Invite your staff to bring their own water bottles or containers for internal meetings and events
- * Provide reusable cups to your guests at events
- * Request the caterer to provide reusable eating utensils for events
- * Include a bottled water free message in all your communications with your guests at and before events
- * Post the pledge in a prominent area in the unit

Green Event Planning

- * Plan ahead to adopt measures to reduce waste generated from the events
- * Avoid or reduce consumption of one-off disposable items
- * Reduce food waste
- * Reduce paper consumption

Individual Pledge

Bottled Water Free Campus

- * Stop purchasing bottled water on campus
(Bottled water refers to those less than 1L, non-sparkling and unflavoured)

All are encouraged to
Take the Pledge, Ban the Bottle

CityU is committed to building a better world. As a big step towards our sustainability goals, we have introduced the CityU Green Footprint Pledge and promoted to seek everyone's commitment to the Pledge. CityU Green Footprint Pledge is a way for all CityU students, faculty, staff and visitors to demonstrate our collective determination in preserving the environment. CityU Green Footprint pledge consisted of two pledges:

- Bottled Water Free Campus
- Green Event



7. Sustainable Activities and Collaborations

CityU Green Footprint Pledge – Bottled Water Free Campus

Plastic water bottles can take thousands of years to biodegrade. Nine out of ten water bottles end up as garbage or litter, and that translates into a staggering of millions bottles per day. According to waste statistics taken by Hong Kong's Environmental Protection Department in 2016, an average of 79 tonnes of polyethylene terephthalate plastic water bottles was disposed of in landfills every day. If the plastic finds its way to the ocean, it will never biodegrade as it fragments into smaller plastic pieces and will probably be consumed by marine wildlife. It is observed that no ocean is free of plastic recently.

The impact associated with disposable plastic water bottles are high:

Environmentally – The production, transportation and disposal of bottled water harms the environment by consuming massive amounts of energy, producing greenhouse gases and creating waste.

Economically – 90% of the cost of bottled water is due to the bottle itself. It costs more to drink bottled water than have filtered water on campus with your own refillable bottle.

Socially – Clean, safe and accessible water is a fundamental human right – not a commodity, and must be accessible to all regardless of social class and wealth.



46 units and 186 individuals have signed the Pledge



7. Sustainable Activities and Collaborations

CityU Green Footprint – Green Event Pledge



A “Green Event” is an event with careful and comprehensive planning to minimize waste generation, and save useful resources as much as possible for reuse, recycling or upcycling. It also provides a platform where different event stakeholders including the exhibitors, caterers, contractors and event participants to engage in waste reduction and recycling in a proactive manner through user-friendly and innovative practices.

CityU has signed the Green Event Pledge that organized by the Environmental Protection Department.

Internally, 44 units of CityU have signed the CityU Green Event Pledge.

7. Sustainable Activities and Collaborations

Green Event Planning



To allow the University members to do better planning in organizing events in a green approach, a sharing session has been held to introduce how the University could support them. Members were very impressed on the services provided especially the new provision – Loaning of Green Event Cutlery Sets.

How can we green our event

Plan ahead to adopt measures to reduce waste generated from the events	<ul style="list-style-type: none">• Use recycled materials for stage setup.• Reuse event resources.• Channel the materials to proper recycling or donation outlets.
Avoid or reduce consumption of one-off disposable items	<ul style="list-style-type: none">• Encourage and facilitate participants to bring their own water bottles.• Borrow reusable cups from FMO.
Reduce food waste	<ul style="list-style-type: none">• Order or prepare food in the appropriate quantity.• Encourage participants to take excess food away after the events.
Reduce paper consumption	<ul style="list-style-type: none">• Wider use of electronic means of communication.
Waste management	<ul style="list-style-type: none">• Provision of waste separation to collect recyclables for recycling.

7. Sustainable Activities and Collaborations

No Straw Campus

Following “No Straw Sunday”, “No Straw Month” and “No Straw Weekend” implemented in 2017-2018, full scale “No Straw Campus @ CityU” has been implemented since 8 February 2019. Enthusiastic responses have been received. All caterers on campus have implemented the following measures:

- Not putting straws at free access counters; and
- Not putting straws in cold drinks or giving away with canned pop.
- Straws are only available upon request.



7. Sustainable Activities and Collaborations

IoT Reverse Vending Machines



As a step towards CityU's commitment for a bottled water-free campus, two units of IoT (Internet of Things) RVMs (Reverse Vending Machine) have been installed at the following locations to collect spent PET plastic bottles for recycling.

- Outside City Express, 5/F, Bank of China (Hong Kong) Complex.
- Common area near Security Room, G/F, Li Dak Sum Yip Yio Chin Academic Building.

The campaign aims to lead an increase on the recycle of PET bottles at campus through innovative IoT RVMs and to raise the awareness of our colleagues and students on sustainability.

7. Sustainable Activities and Collaborations

IoT Reverse Vending Machines

Being technology-driven, the RVM uses a barcode scanner to sort out PET bottles for recycling. The quantity of waste inside the machine is monitored by a telemetry system and would generate a signal to back office for collection of the spent PET bottles to certified recyclers in this way, the spent PET bottles will be properly handled and not be sent to landfill.

To encourage users for recycling, incentives for every 30 PET bottles recycled will:

- Get a free PET drink (valued at \$7.5) from Vitasoy at the Smart Vending Machine; or
- Give a donation of \$7.5 via Vitasoy to St. James' Settlement.



A total of 4,636 pieces of PET bottles have been collected for recycle since the launch of the programme in November 2018.

7. Sustainable Activities and Collaborations

Joint-U Campaign 2019 – Unify: BYO

Following the success of the campaign in 2017-2018, the eight member universities has decided to continue with the collective campaign to once again actualize the beauty and power of synergy.

To further extend the determination to develop a green and health community by reducing waste at source, the Joint-U Campaign 2019 – Unify: BYO (八大BYO) was launched on 11 March 2019 to engage campus community members to take BYO (“Bring Your Own”) actions to reduce disposable waste by bringing their own reusable (water bottles, cups, food containers, cutlery, bags etc.) as to meet their needs and own prep.

The campaign signifies the joint efforts of City University of Hong Kong, The Education University of Hong Kong, Hong Kong Baptist University, The Hong Kong Polytechnic University, Lingnan University, Hong Kong University of Science and Technology, The Chinese University of Hong Kong, and the University of Hong Kong.

A video has been produced to showcase the joint efforts from the eight universities. CityU extended the campaign to a “BYO @ CityU” starting from 11 March till 10 April 2019. During this period, catering outlets on campus offered the incentives as follows:

BYO Item	Catering Outlet	BYO Incentive*
	City Express (Deli Plus)	1 stamp per purchase, 10 stamps = 1 free drink
	AC2 Canteen & AC3 Bistro	\$1 off coffee
	CMCAFE, Garden Cafe & Coffee Cart	Free upgrade from hot to cold drinks (face value = \$2)
	Homey Kitchen	\$0.5 off drinks
	City Express, AC2 Canteen, AC3 Bistro CMCAFE, Garden Cafe	\$1 off takeaway orders (except pre-packaged food)
	City Chinese Restaurant & City Top	\$2 off all food for takeaway orders
	Homey Kitchen	\$0.5 off takeaway orders (except pre-packaged food)



UNIFY 八大BYO
BRING YOUR OWN

11 MARCH - 10 APRIL 2019 @ CityU

Hong Kong Sustainable Campus Consortium

8 UNIVERSITIES UNIFIED TO REDUCE DISPOSABLE WASTE

BYO Item	Catering Outlet	BYO Incentive*
	City Express (Deli Plus)	1 stamp per purchase, 10 stamps = 1 free drink
	AC2 Canteen & AC3 Bistro	\$1 off coffee
	CMCAFE, Garden Cafe & Coffee Cart	Free upgrade from hot to cold drinks (face value = \$2)
	Homey Kitchen	\$0.5 off drinks
	Canteen, AC3 Bistro Cafe	\$1 off takeaway orders (except pre-packaged food)
	Restaurant & City Top	\$2 off all food for takeaway orders
	Homey Kitchen	\$0.5 off takeaway orders (except pre-packaged food)

*Must be clean and with no apparent damage; and should be appropriate and suitable in size. Incentive without prior notice and the catering outlet reserves the right to decline any incentive offer.

設施管理處
Facilities Management Office

QR Code: 

CityU

Zero Dine-in Disposable Utensils Charter



As a continuing effort in reducing disposables from restaurants, CityU has signed the “Zero Dine-in Disposable Utensils Charter” (Charter) organized by Green Sense. The restaurants on campus joining the Charter were: City Express, AC2 Canteen, AC3 Bistro, City Chinese Restaurant, City Top.

By signing the Charter, the University and the restaurants are committed to the following:

- Avoiding the distribution of disposable utensils to dine-in area.
- Refraining from providing disposable items to the customers, such as plastic straws, paper tray-liners, plastic stirring sticks, etc.
- Using washable utensils and containers within the dine-in area.
- Using washable utensils and containers within the dine-in area.
- Encouraging customers to bring their own utensils, offering discounts if possible.
- Considering cooperation with dish-washing companies if there is a lack of scullery facilities.



Through providing less disposables and enhancing sustainability considerations in operations, we hope that every member of the CityU Community can produce less waste by using no disposables.

Green Sense has inspected City Express, AC2 Canteen and AC3 Bistro among the five joined catering outlets. All of the three outlets have obtained the Platinum Award.

7. Sustainable Activities and Collaborations

Books Give and Take

CityU organized a “Books Give and Take 書香世代 - 延續生命、世代相傳” campaign in 2017-2018 and received overwhelming response. To ride on the success from last year, the campaign was returning for another year from 4 June to 8 July 2019. The purpose of the campaign is to engage the CityU 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.



In addition to the books have been taken away by interested people, to continue the lives of the surplus books, six carton boxes and 491 in numbers, have been donated to Christian Action – Green Connect.

7. Sustainable Activities and Collaborations

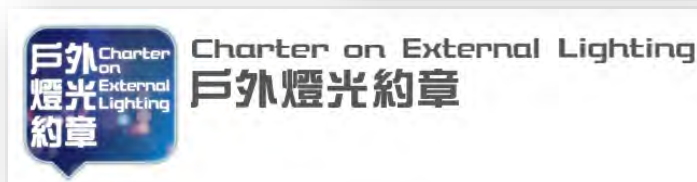
Energy Saving Charter

Earlier in May 2019, the University has signed up to the “Energy-Saving Charter 2019” which is co-launched by the Environment Bureau (ENB), and Electrical and Mechanical Services Department (EMSD). By signing the Charter, the University is committed to maintain an average indoor temperature between 24-26°C during the summer months of June to September in 2019. We have issued energy saving tips for control of indoor temperature to the University community.

- Keep all the windows and doors closed when air-conditioner is running.
- Keep doors between air-conditioned and non-air-conditioned areas such as those connecting the outside of the building, lift lobbies, toilets and stores shut so as to minimize air infiltration when the air-conditioner is operating.
- Keep door of fridge closed.
- Avoid setting the thermostat at a colder setting than normal when air-conditioner is on. It will not cool the room any faster but cold result in excessive power consumption.
- Turn on the ceiling fans if installed in classrooms. Fans cool people by creating a wind chill effect. Turn them off when you leave the room.

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).



Sustainable Activities and Collaborations

Hong Kong No Air Con Night 2018

The captioned campaign organized by the Green Sense held on 5 October 2018 was a 12-hour-long air-conditioning out action starting from 7:00 pm 5 October 2018 to 7:00 am 6 October 2019 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 2019

CityU supported, as always, the captioned campaign held on 30 March 2019 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.



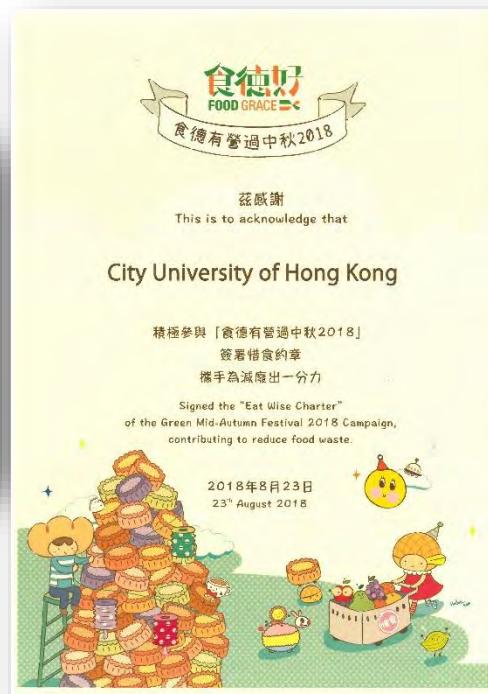
7. Sustainable Activities and Collaborations

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 12 February 2019 to 26 March 2019. 200 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). 87 pieces of collected mooncakes were distributed to those in need on the day of Mid-autumn Festival.



7. Sustainable Activities and Collaborations

Hong Kong Green Day

As supporting organization of Hong Kong Green Day that organized by Green Council.



8. *Recognitions and Awards*

2018 Hong Kong Awards for Environmental Excellence – Certificate of Merit



Hong Kong Green Organisation



8. *Recognitions and Awards*



Commendation Scheme on Source Separation of Commercial and Industrial Waste



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 organized a large promotion event on campus and participate in joint University activities named as UNIFY and will focus at "green living" to promote a sustainable living life style.

At the societal level, to support the Government's initiatives in waste reduction, particularly in food waste management, energy and water conservation. We will also continue to collaborate with green organizations in participating and supporting the events organized or initiated by them.

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
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For The World

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