

HONG KONG SUSTAINABLE CAMPUS CONSORTIUM

ANNUAL REPORT 2017-2018



香港城市大學
City University of Hong Kong

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Contents

Message from the Convenor.....	3
HKSCC Membership & Meetings.....	4-5
Sustainability Figures.....	6-13
Collaborative Accomplishments.....	14-19
- Dialogue with Environmental Protection Department	
- Continuous effort in plastic waste reduction	
- Strategic planning for next cycle	
- Sharing session with Environment Bureau	
Looking Back, Moving Forward.....	20
Appendices.....	21-24



MESSAGE FROM THE CONVENOR

*I*n May 2010 the Presidents and Vice Chancellors of the eight Publicly-Funded Universities in Hong Kong demonstrated their commitment to sustainable development by signing the Hong Kong Declaration and establishing the Hong Kong Sustainable Campus Consortium (HKSCC) under the Heads of Universities Committee (HUCOM). The HKSCC recognizes, and relishes, the unique roles of universities as (1) producers and communicators of sustainability knowledge, (2) educators of the next generation of leaders in Hong Kong and around the world, (3) potential “laboratories” to test proposed sustainability practices, and (4) potential role-models to other sectors of how to apply sustainable best practices. Completing the first eight-year cycle in which all member universities have served as Convenors provides the ideal time for the HKSCC to reflect upon the advances that member institutions have made both individually and collectively and re-dedicate ourselves to discovering, sharing, and applying best-practices in sustainability.

During the past year the HKSCC held three meetings of the full consortium and three meetings of the Task Force on Sustainability Performance. Highlights of the year include a meeting with the EPD which allowed members of the consortium to be briefed on the new waste charging scheme and allowed members of the consortium to ask sustainability-related questions to the guests. In addition, the consortium conducted “UNIfy: Skip the straw” our first joint-university campaign and we are pleased that all members universities have reinforced their commitment through the implementation of measures to reduce the consumption of plastic straws. The Joint University Campaign Sub-Committee (JUCSC) is working to build on the momentum generated by our initial joint event by focusing on B.Y.O. (Bring Your Own) during the next Joint University Campaign. In addition, member universities have carefully documented important variables to allow us to monitor how we are doing as a sector in reducing energy use, carbon emissions, waste, etc.

A Think Tank on Strategic Planning was formed to identify key themes and areas of focus for the consortium over the next eight years which can help the universities lead to a more sustainable Hong Kong through discovery, education, and action.

Prof. Mark A. McGINLEY

Convenor of Hong Kong Sustainable Campus Consortium 2018

Director of Core Curriculum and General Education
Professor of Teaching and Head of Science Unit
Lingnan University



HKSCC MEMBERSHIP & MEETINGS

*I*n 2018, Lingnan University took up the convenorship and provided administrative and secretarial support to the HKSCC and its working group, the Task Force on Sustainability Performance (TFSP). Throughout the year, the HKSCC and the TFSP held three meetings respectively. The meeting schedule and the membership of the HKSCC, TFSP and two other working groups in 2018 are shown in the Appendices.





The 24th HKSCC Meeting



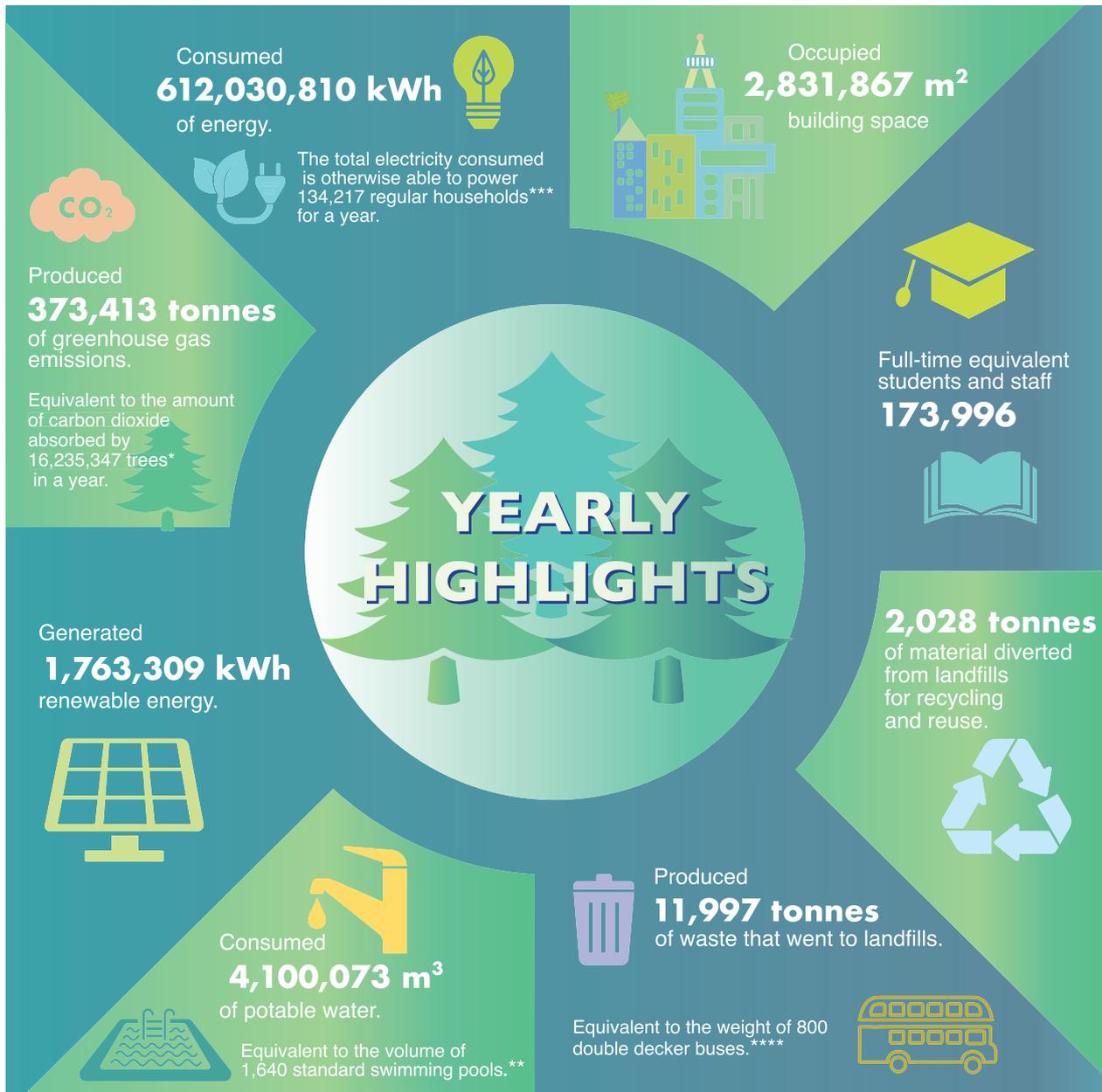
A visit to the e-waste collection point at HKBU



Members of the JUCSC, a working group under the TFSP



SUSTAINABILITY FIGURES

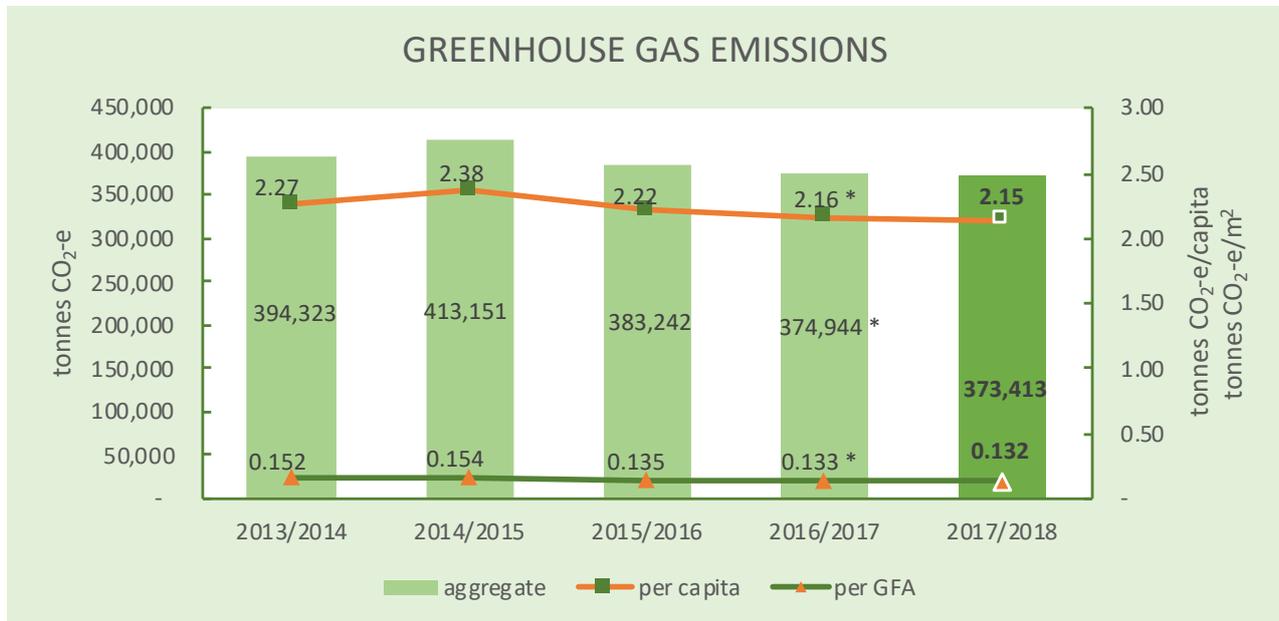


Reference

- * A mature tree absorbs 23kg of CO₂ per year (Carbon removal factor adopted by ISO-14064)
- ** The volume of a standard Olympic-size swimming pool is 2,500m³
- *** The average household electricity consumption in Hong Kong is about 4,560kWh per year (Official average household electricity consumption data provided by the Electrical and Mechanical Services Department)
- **** The average weight of a double decker bus in Hong Kong is 15 tonnes (Figures provided by the Kowloon Motor Bus (KMB))

SUSTAINABILITY FIGURES

Greenhouse Gas Emissions



*REMARK: 2016/17 greenhouse gas emissions figures have been updated.

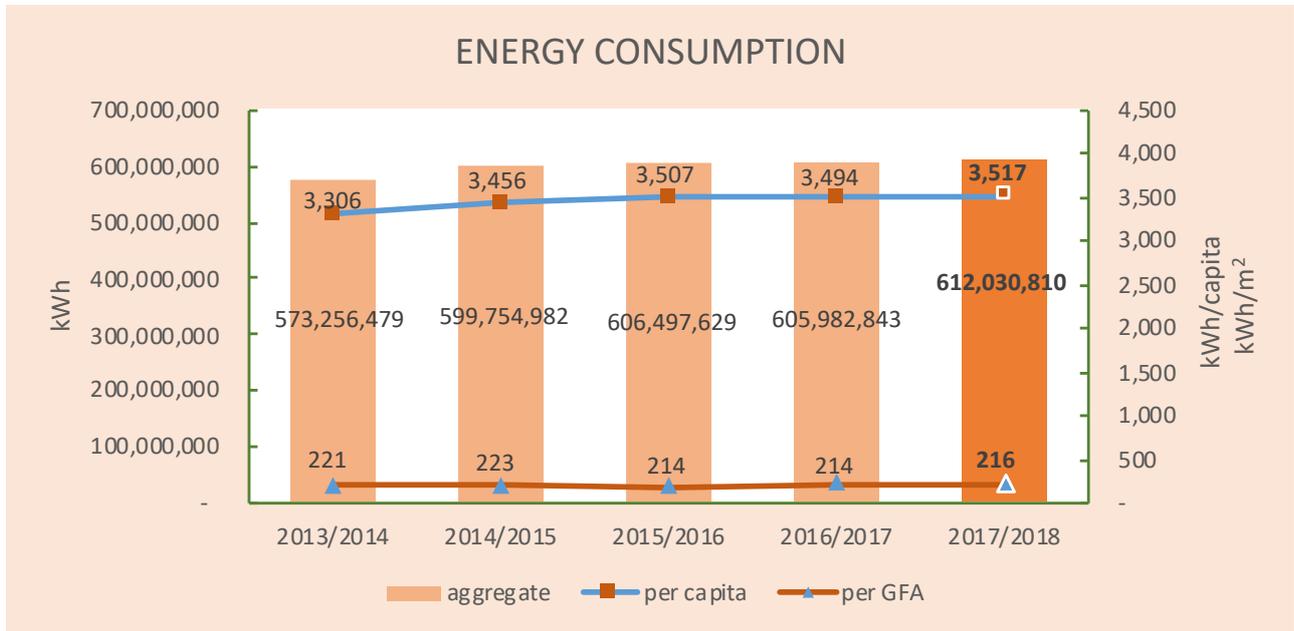
In 2017/18, the Greenhouse Gas Emissions decreased by 1,531 tonnes of carbon dioxide equivalent (CO₂-e) compared to the previous reporting period. Both per capita and per gross floor area (GFA) emissions declined by 0.73% and 0.53% respectively. All member universities implemented green initiatives including car fleet management and material selection and energy use to optimize operational needs.



	2016/17	2017/18	
Greenhouse Gas Emissions (tonnes)	374,944	373,413	-0.41% Aggregate
	2.16	2.15	-0.73% Per Capita
	0.133	0.132	-0.53% Per GFA

SUSTAINABILITY FIGURES

Energy Consumption



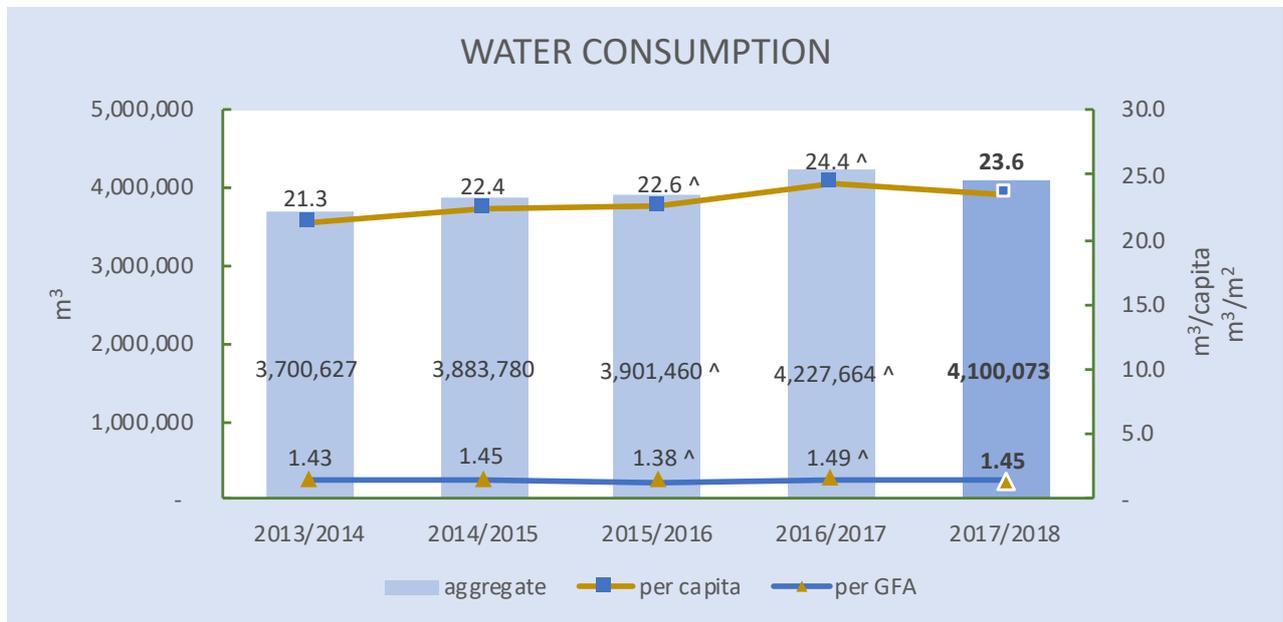
The overall energy consumption increased slightly (1%) in 2017/18, primarily due to increased utilization of on-campus facilities for teaching and learning in the evenings and weekends and the establishment of new buildings and facilities. The collective energy-saving efforts and retro-commissioning of existing building (e.g., LED replacement programs and sensor control of lighting) offset increase energy consumption of capital works. Continued promotion of awareness of energy saving across campuses also contributed in this regard.



	2016/17	2017/18	
Energy Consumption (kWh)	605,982,843	612,030,810	+1% Aggregate
	3,494	3,517	+0.67% Per Capita
	214	216	+0.88% Per GFA

SUSTAINABILITY FIGURES

Water Consumption



^REMARK: The water consumption figures of 2015/16 and 2016/17 have been updated.

Compared to the figures in 2016/17, the total, per capita, and per GFA water consumption decreased by 3.02%, 3.33%, and 3.13% respectively. A significant drop in water consumption at one campus was influenced by the closure of a canteen. Without a doubt, the built-in measures such as water-saving devices in shower heads and sensor-type water taps in bathrooms also made a contribution at several member universities.



	2016/17	2017/18	
Water Consumption (m ³)	4,227,664	4,100,073	-3.02% Aggregate
	24.4	23.6	-3.33% Per Capita
	1.49	1.45	-3.13% Per GFA

SUSTAINABILITY FIGURES

Municipal Solid Waste



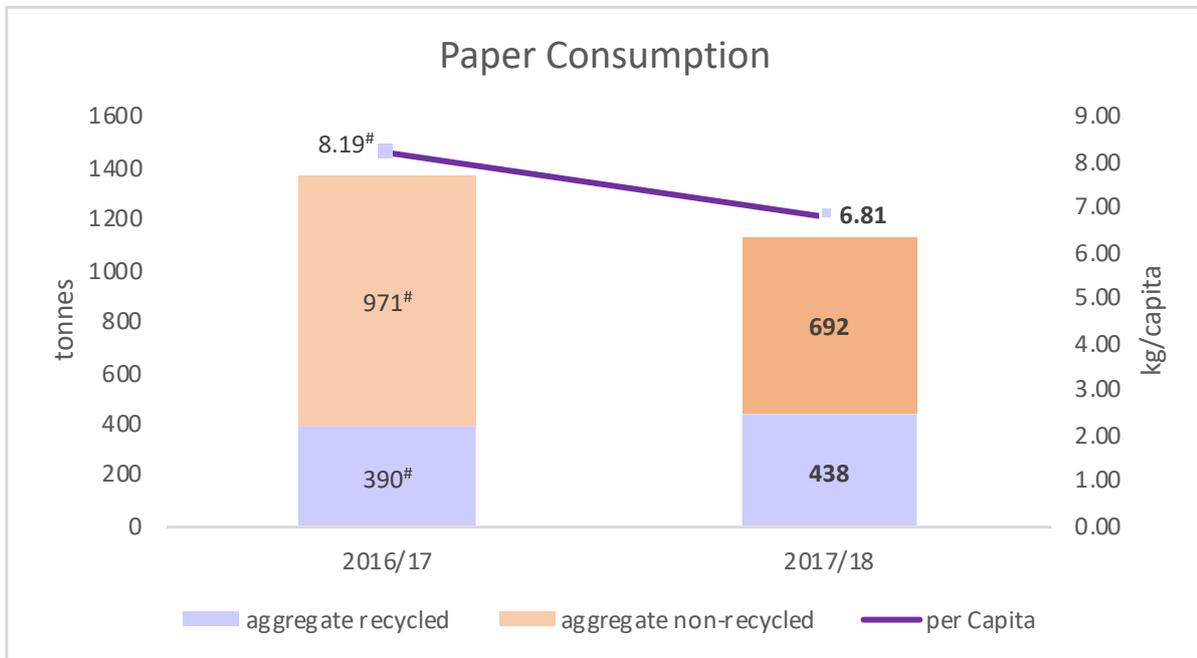
The aggregate municipal solid waste production dropped slightly (0.28%) compared to the previous year. Increased waste production as a result of construction work taking place in different universities were offset by the collective efforts in food-waste management and the elimination of disposables on campuses.



	2016/17	2017/18	
Municipal Solid Waste (tonnes)	12,031	11,997	-0.28% Aggregate
	69.4	68.9	-0.6% Per Capita

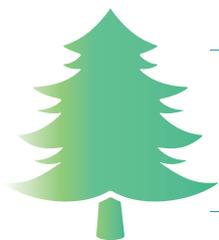
SUSTAINABILITY FIGURES

Paper Consumption



REMARK: 2016/17 paper consumption figures have been updated.

Member universities used 16.92% less paper in 2017/18 than in the previous year. The percentage of recycled paper used increased significantly (from 28.64% to 38.76%) over the last year. Increased use of electronic filing systems and document sharing, practices of Less Paper, E-notes to students, and double-sided printing at member universities contributed to the reduction in paper consumption.



	2016/17	2017/18	
Total Paper Consumption (kg)	1,360,474	1,130,267	-16.92% Aggregate
	8.19	6.81	-16.83% Per Capita

SUSTAINABILITY FIGURES

How We Are Doing

One of the most important contributions of the HKSCC has been the collection of standardized data on consumption (e.g., energy, water, paper) and waste production (e.g., CO₂ emissions, solid waste) that allows us to assess the effectiveness of sustainability efforts in the university sector. Collecting our fifth year of data provides an opportunity to take a first look about how the sector is performing.

The research, education, and service missions of the member universities continues to expand over time which has resulted in an increase in the size of our facilities (built up area: 2013/14 – 2,530,561 m², 2017/18 – 2,831,867 m², an increase of 11.9%) and the number of full-time staff and full-time equivalent students (2013/14 – 173,385 ind., 2017/18 – 173,996 ind., an increase of 0.35%). More people consuming resources and producing waste, more space to be lighted, cooled, etc., and the increased technological requirements of a modern university could increase consumption of resources and waste production. Thus, it will be important to consider these variables in total and on a per capita and per area basis.



SUSTAINABILITY FIGURES

The table below shows changes from the first year of data collection, 2013/14 to the most recent year, 2017/18.

		2013/14	2017/18		
Build Up Area (m ²)		2,530,561	2,831,867	+11.9%	
Full-time Staff and Full-time Equivalent Students		173,385	173,996	+0.35%	
Greenhouse Gas Emissions (tonnes)		394,323	373,413	-5.3%	Aggregate
		2.27	2.15	-5.46%	Per Capita
		0.152	0.132	-13.25%	Per GFA
Energy Consumption (kWh)		573,256,479	612,030,810	+6.76%	Aggregate
		3,306	3,517	+6.4%	Per Capita
		221	216	-2.21%	Per GFA
Water Consumption (m ³)		3,700,627	4,100,073	+10.79%	Aggregate
		21.3	23.6	+10.63%	Per Capita
		1.43	1.45	+1.25%	Per GFA
Municipal Solid Waste (tonnes)		11,998	11,997	-0.01%	Aggregate
		69.2	68.9	-0.36%	Per Capita

In spite of the increase in built up area and the number of full-time staff and full-time equivalent students at member universities during this period, the total GHG emissions of member universities have declined while the production of solid wastes has remained basically unchanged. The decline in greenhouse gases is a result of reduced emissions in per capita and per GFA. Not surprisingly, the total energy and water consumption has increased as our universities have expanded, but the energy consumed per GFA has declined overtime indicating increases in energy use efficiency at our campuses. The consortium will continue to collect and analyse the data in order to monitor our progress to achieving our sustainability goals.

COLLABORATIVE ACCOMPLISHMENTS

(a) Dialogue with Environmental Protection Department

A Closed-door dialogue with the officials from the Environmental Protection Department on the Municipal Solid Waste Charging Scheme (22nd November 2018)



Mr. Kenneth Chan, Assistant Director (Charging Preparation), together with Mr. Lawrence Cheung, Principal Environmental Protection Officer (Community Relations) and Mr. Vincent Tsui, Senior Environmental Protection Officer attended the closed-door dialogue on the Municipal Solid Waste Charging Scheme at the HKSCC Task Force meeting held on 22nd November 2018.



The EPD officials made a presentation about the objectives, charging mechanism, implementation strategy and estimated implementation timeline of the Scheme, including the introduction of several waste reduction and recycling pilot schemes to be launched in 2019, e.g. free collection service of waste plastic from non-commercial and non-industrial sources and food waste from commercial and industrial premises, application of Reverse Vending Machines, and setting up of new outreaching teams etc.



The TFSP shared concerns and suggestions about the Scheme with the EPD, including the implementation of trial projects and grace period, illegal activities possibly being derived from the charging, challenges of waste management in university setting and recycling situation in Hong Kong etc. An exchange of views of how to better promote waste reduction and initiate positive behaviour changes of the community also took place.

The EPD appealed for the collective and united effort of the tertiary education sector to support the Scheme, as well as the complementary initiatives of the Government. The HKSCC expressed its strong will to promote sustainability and combat climate change out of solidarity with the Government.



COLLABORATIVE ACCOMPLISHMENTS

(b) Continuous effort in plastic waste reduction

Straw limitation measures across universities

*I*n March 2018, the very first joint-university disposables campaign “UNify: Skip the straw” was launched with great success in enhancing the awareness of disposable waste reduction of staff and students across the member universities. To further extend the determination to develop a green and healthy community, some member universities have stepped up to join the rest in making their long-term commitment to waste reduction by implementing straw limitation measures which was an important milestone of the HKSCC.



Joint university campaign 2019 - B.Y.O. Week

**BRING
YOUR
OWN**

*F*ollowing the success of the No Straw Week, the eight member universities decided to continue with the collective campaign to once again actualize the beauty and power of synergy. B.Y.O. (Bring Your Own) has been picked as the theme in 2019, with videos and social media elements to be incorporated to enhance the attractiveness to students and the general public.



COLLABORATIVE ACCOMPLISHMENTS

(c) Strategic planning for the next cycle

In hopes of doing a better planning for the HKSCC in the long run, a Think Tank on Strategic Planning was formed with experienced pioneers and leaders from the member universities to formulate the key development direction and outline the ultimate collective goals of the consortium in the next eight-year cycle. The framework will be presented to the next Convenor, HKU for further elaboration.



The common goals of the consortium in the next cycle are outlined as follows:

- 1) Position the tertiary education sector as a leading voice for building a sustainable community in Hong Kong by being transparent in our goals, targets, and performance;
- 2) Utilize our collective strength, research, and roles as educators to influence change-makers for positive sustainable outcomes;
- 3) Prepare our graduates to succeed in an increasingly resource-constrained world and to assure a quality life for future generations; and
- 4) Utilize our campuses as living lab for sustainable innovation, practice and learning.



COLLABORATIVE ACCOMPLISHMENTS

(d) Sharing session with Environment Bureau

A sharing session with Secretary for the Environment, Mr. WONG Kam Sing, G.B.S., JP, on the waste issues cum MSW Charging Scheme in Hong Kong (29th January 2019)



Mr. WONG Kam Sing, G.B.S., JP, Secretary for the Environment and Ms. Michelle AU, Political Assistant met with the HKSCC at its 26th meeting on 29th January 2019 to share the latest information of the Scheme and insights into the waste challenges in Hong Kong.

Mr. Wong gave a presentation about the objectives and implementation strategy of the Scheme, in particular highlighting the projects that the universities could take part in, including the MSW Charging Trial Scheme, food waste recycling at the Organic Resources Recovery Centre O·PARK1, pilot scheme on reverse vending machines (RVMs) for collecting plastic beverage bottles for recycling, and applications for the Environment and Conservation Fund (ECF).



COLLABORATIVE ACCOMPLISHMENTS

The HKSCC shared experience, views and concerns with the ENB, including the effectiveness and rebating approaches of the RVMs, rental schemes for reusable utensils, potential policies or regulations on reduction of certain disposable items, problem of fly tipping and recycling situation in Hong Kong etc.

The ENB appreciated the ideas and comments from the HKSCC and assured that they would be taken into consideration, together with the suggestions to be consolidated from different sectors after the pilot schemes, in order to formulate appropriate guidelines and policies for various environmental issues.

Both the ENB and HKSCC valued the great opportunity for the exchange of views and looked forward to more constructive dialogues and close collaborations on sustainable development between the tertiary education sector and the Government in the future.



LOOKING BACK, MOVING FORWARD

After completing the initial eight-year cycle it is clear that the HKSCC, and the public university sector, can play a significant role as an advocates and practitioners of sustainable practices. Collecting and publicly presenting consumption and waste production holds the universities accountable for their sustainability efforts. The diverse expertise, focus and experiences of member universities have allowed the testing of a variety of sustainability strategies and allowed sharing of best practices among universities. In addition, we have recognized the power of working together to develop and offer successful education programs. Finally, the combined power of the member universities can drive the development of more sustainable purchasing and waste collection practices and our combined voice to speak to government, business, and community leaders can allow us to become more effective advocates for sustainable practices on our campuses and in our communities.

Approaching a new cycle, we will continue to work closely with the Government and support the Government's initiatives in promoting waste reduction and recycling, maximisation of energy efficiency in Hong Kong, and most importantly the new Municipal Solid Waste Charging Scheme which is expected to be effective in the near future.

We earnestly look forward to the opportunities that await the HKSCC in the next eight years!



APPENDICES

Appendix I

Meeting Schedule under Lingnan's Covenorship

HKSCC Meetings

Meeting	Date	Major discussion items
24 th Meeting	17 th April 2018	<ul style="list-style-type: none"> - Review of HKSCC annual report framework - Major focuses of the year for TFSP
25 th Meeting	24 th October 2018	<ul style="list-style-type: none"> - Joint university campaign - Review of resources allocation and development direction - Potential collaboration with the industry
26 th Meeting	29 th January 2019	<ul style="list-style-type: none"> - Development of the HKSCC 2017-18 annual report - Strategic planning for the next cycle - Visit by the Environment Bureau and sharing on the waste issues in Hong Kong

TFSP Meetings

Meeting	Date	Major discussion items
14 th Meeting	15 th May 2018	<ul style="list-style-type: none"> - Review of Chairmanship - Strategic development - Sharing on anticipated upcoming challenges
15 th Meeting	8 th October 2018	<ul style="list-style-type: none"> - Joint university campaign - Green Event Pledge - Review of reporting template for annual report
16 th Meeting	22 nd November 2018	<ul style="list-style-type: none"> - E-waste management on campuses - video production for showcasing the accomplishment of the HKSCC in the 1st cycle - Development of the annual report - A closed-door dialogue with the Environmental Protection Department on Municipal Solid Waste Charging Scheme

APPENDICES

Appendix 2A

Membership of the Hong Kong Sustainable Campus Consortium 2018

University	Representatives	Title / Position
LU	Prof. Mark A. McGINLEY (Convenor)	Professor of Teaching and Head of Science Unit, Director of Core Curriculum and General Education
	Mr. Ian C.T.WOO	Comptroller, Office of the Comptroller
	Ms. Mei Chan (Secretary) (June 2018 - Present)	Senior Administrative Officer, Science Unit
	Ms. Angela Kwong (Secretary) (January - May 2018)	Facilities Management Manager, Office of the Comptroller
CityU	Prof. Samuel M.Y. HO	Associate Provost (Institutional Initiatives)
	Ms. Brenda F. M. LAI	Director of Facilities Management
CUHK	Mr. Eric S.P. NG	Vice-President (Administration) and University Secretary
	Mrs. Cecilia S.S. LAM	Director, Campus Planning and Sustainability Office
EdUHK	Ms. Sarah M.Y. WONG	Vice-President (Administration)
	Dr. Eric P.K. TSANG	Acting Dean and Acting Associate Dean (Undergraduate Studies and Student Learning), Faculty of Liberal Arts and Social Sciences
HKBU	Dr. Andy S.C. LEE	Vice-President (Administration) and Secretary
	Dr. CHUNG Shan Shan	Senior Lecturer, Department of Biology
HKU	Dr. Steven J. CANNON	Executive Vice President (Administration & Finance)
	Prof. Kaimin SHIH	Professor, Department of Civil Engineering
HKUST	Mr. Davis BOOKHART	Senior Manager and Head, Sustainability Unit
	Prof. Jimmy C.H. FUNG	Professor and Head, Division of Environment and Sustainability
PolyU	Prof. Alexander P.K. WAI	Vice President (Research Development)
	Mr. Joseph P.T. CHAN	Head, Campus Sustainability Office

APPENDICES

Appendix 2B

Membership of the Task Force on Sustainability Performance 2018

University	Representatives	Position
LU	Prof. Mark A. MCGINLEY (Chairperson) Ms. Mei CHAN (Secretary)	Professor of Teaching and Head of Science Unit, Director of Core Curriculum and General Education Senior Administrative Officer, Science Unit
CityU	Mr. W. K. LEUNG	Senior Safety and Administration Manager, Facilities Management Office
CUHK	Mr. Calvin Y.K. LAI	Assistant Director (Sustainability), Campus Planning and Sustainability Office
EdUHK	Dr. Eric P.K. TSANG	Acting Dean and Acting Associate Dean (Undergraduate Studies and Student Learning), Faculty of Liberal Arts and Social Sciences
HKBU	Mr. Michael T.M. KWOK	Consultant (Environmental Health and Safety), Estates Office
HKU	Ms. Maegan COWAN Mr. Y. C. NG Mr. Peter PUN	Project Manager, Sustainability Office Assistant Director, Estates Office Senior Technical Manager, Estates Office
HKUST	Mr. Davis BOOKHART	Senior Manager & Head, Sustainability Unit Adjunct Assistant Professor, Division of the Environment and Sustainability
PolyU	Mr. Joseph P.T. CHAN	Head, Campus Sustainability Office

APPENDICES

Appendix 2C

Membership of the Joint University Campaign Sub-Committee 2018-19

University	Representatives	Position
LU	Ms. Mei CHAN (Coordinator)	Senior Administrative Officer, Science Unit
CityU	Mr. W. K. LEUNG	Senior Safety and Administration Manager, Facilities Management Office
CUHK	Ms. Serena WONG	Sustainability Officer, Campus Planning and Sustainability Office
EdUHK	Ms. Janey LEUNG	Assistant Property & Facility Manager, Estates Office
HKBU	Mr. Cannes WONG	Assistant Officer (Environmental Health and Safety), Estates Office
HKU	Ms. Maegan COWAN (Coordinator)	Project Manager, Sustainability Office
HKUST	Ms. Loretta LUK	Program Manager (Sustainability), Sustainability Unit
PolyU	Ms. Florence YUEN	Campus Sustainability Officer, Campus Sustainability Office

Appendix 2D

Membership of the Think Tank on Strategic Planning

University	Representatives	Position
LU	Prof. Mark A. MCGINLEY	Professor of Teaching and Head of Science Unit, Director of Core Curriculum and General Education
HKBU	Mr. Michael T.M. KWOK	Consultant (Environmental Health and Safety), Estates Office
HKU	Ms. Joy LAM	Acting Sustainability Manager and Head, Sustainability Office
HKUST	Mr. Davis BOOKHART	Senior Manager and Head, Sustainability Unit



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