



Chairman and Members of Panel on Environmental Affairs, Legislative Council
(c/o Clerk to Panel on Environmental Affairs) Legislative Council Complex,
1 Legislative Council Road,
Central,
Hong Kong

Date: May 25, 2019
(by email and hand delivered)

Dear Sir/Madam:

Re: Panel on Environmental Affairs Meeting on 25 May 2020, agenda item #IV
“Management of Waste Plastics”

Referencing LC Paper No. CB(1)655/19-20(03) and LC Paper No. CB(1)655/19-20(04)

Plastic Free Seas is pleased to see Management of Waste Plastic on the Legco agenda on 25 May 2020 as there is a great need for more planning and implementation with regard to the reduction, reuse, collection and effective recycling of waste plastic within Hong Kong. We can no longer rely on exporting our waste problem to other neighbouring countries.

Plastic Free Seas fully supports a PRS on plastic beverage bottles which will give the bottles a value to encourage the return for recycling, ensuring that these bottles do not end up in the landfill.

Our overall waste creation continues to rise and our ability to handle the amount of waste created has not been evolving sufficiently to meet this challenge. Plastic Free Seas has a number of questions, listed below, pertaining to the information shared in the above two referenced submission papers which will enable us to better understand the direction that Hong Kong is taking in order to handle the problem of plastic waste.

LC Paper No. CB(1)655/19-20(03)

2. Starting from 1 January 2021, transboundary movement of waste plastics controlled under the Basel Convention (e.g. mixed or contaminated waste plastics, or waste plastics that cannot be recycled in an environmentally sound manner) shall not proceed unless consents are received from the export, import and all transit states concerned.

1. Given the volume of waste that is traded through Hong Kong, what measures is the government planning to put in place to ensure compliance with the Basel Convention regarding imported waste that transits HK to other Asian destinations?
2. And the same for the plastic waste being exported from domestic collections?

3. According to the annual survey “Monitoring of Solid Waste in Hong Kong”, around 2 300 tonnes of waste plastics are disposed of at landfills daily in 2018, which accounts for 20% of total municipal solid waste. Of all the waste plastics, plastic bags constitute 36% (which include garbage bags, plastic shopping bags (PSBs) and other plastic bags), plastic cutleries 10%, and plastic beverage containers 5%. The recycling rate of waste plastics is around 7%, with around 55 800 tonnes of waste plastics were recycled locally

Regarding Plastic Bags

1. Is there a breakdown of the amounts of the different types of plastic bags as mentioned above: garbage bags, PSBs and other plastic bags? Given that it is such a big percentage of the overall total plastic it would make sense to understand the types and volumes of bags within that number in order to try to solve the problem.
2. What types of plastic bags would fall into other?

Regarding Other Plastic

1. Considering Other is the largest amount at 1,025 tonnes per day (44% of the total amount), is there a further volume breakdown of the amount of the more common items included in that number? i.e. as per Others (2) noted at the bottom - stretch film packaging, toys, offcuts, etc.

Regarding local vrs exported plastic recycling

1. What is the breakdown of the plastic recycled locally by type? This information is available for the exported material but not for the locally recycled material.

Regarding Plastic Cutlery

1. Where does the 10% plastic cutlery value come from? Is there data that further breaks down the 7 categories included under Plastics in the MSW2018 report?

Regarding Plastic Dining Ware (not mentioned above)

1. What is considered Plastic Dining Ware?
2. Is that category further broken down?
3. Considering it is 169 tonnes per day (7.2%), higher than plastic beverage bottles, and assuming it is much more difficult to collect and recycle, why is there not a push for a strategy other than voluntary reduction being devised for these items?

**Plate 3.3 Recyclables recovered from MSW in 2018
- By type of recyclable**

Recyclable type	Quantity of recovered recyclables (thousand tonnes)		
	Exported for recycling (a)	Recycled locally (b)	Total recovered for recycling (c) = (a) + (b)
Paper	694.6 (42.5%)	0.0 (0.0%)	694.6 (39.1%)
Plastics	8.4 (0.5%)	55.8 (38.5%)	64.2 (3.6%)

**Plate 3.7 Quantities and values of exported recyclable materials recovered from MSW in 2018
- By major type of recyclable material**

Recyclable type	Quantity		Value		Value per unit weight
	(tonnes)		(\$ thousand)		(\$ / tonne)
c. Plastics					
- Polyethylene (PE)	1,594	(19.0%)	4,341	(27.9%)	2,723
- Polyethylene terephthalate (PET) bottles	115	(1.4%)	138	(0.9%)	1,198
- Polyethylene terephthalate (PET) other than bottles	114	(1.4%)	268	(1.7%)	2,340
- Polypropylene (PP)	509	(6.1%)	819	(5.3%)	1,608
- Polystyrene & copolymers (PS)	102	(1.2%)	192	(1.2%)	1,888
- Polyvinyl chloride (PVC)	433	(5.2%)	654	(4.2%)	1,512
- Others ⁽¹⁾	5,531	(65.9%)	9,173	(58.9%)	1,658
(Plastics) Sub-total	8,399	(100.0%)	15,586	(100.0%)	1,856

Plastics					
- Non-PET plastic bottles	55	(0.8%)	19	(0.4%)	74 (0.6%)
- PET plastic bottles	81	(1.2%)	58	(1.2%)	139 (1.2%)
- Plastic bags	552	(8.2%)	300	(6.4%)	851 (7.4%)
- Plastic dining wares	105	(1.6%)	65	(1.4%)	169 (1.5%)
- Polyfoam-dining wares	28	(0.4%)	14	(0.3%)	41 (0.4%)
- Polyfoam-others	22	(0.3%)	22	(0.5%)	44 (0.4%)
- Others ⁽²⁾	403	(6.0%)	622	(13.2%)	1,025 (9.0%)
(Plastics) Sub-total	1,244	(18.5%)	1,099	(23.3%)	2,343 (20.5%)

18. In response to the increasing number of takeaway orders due to the coronavirus disease 2019 (COVID-19) outbreak, the EPD and ECC have reminded the public through social media, online activities, public transports and media advertisements to support “plastic-free takeaway” while fighting against the pandemic.

1. How does the EPD and ECC recommend the public to support “plastic-free takeaway” while fighting against the pandemic?

20. Besides, the Government is progressively installing 500 more water dispensers in government venues and the target is to increase the number of water dispensers from about 2 700 units at present to about 3 200 units by 2022 for public use in government venues. For country parks, there are currently 15 water filling stations already in place, and about ten more will be installed in 2021 that can be conveniently used by visitors. The Government will continue to install more water filling stations at suitable locations in country parks and encourage visitors to bring their own bottles.

1. How many more water dispensers will the Gov’t continue to install in country parks after the ten more in 2021? 25 water fountains by the end of 2021 seems low given the size of our country parks and trail networks if you are trying to reduce the amount of water bottles purchased.
2. Is there a map/list of the proposed locations for the 500 being installed in government venues?
3. Is there a map for the proposed 25 in the country parks?

4. Are LCSD facilities and locations covered under government venues?

22. To facilitate wider adoption of the “plastic-free” lunch arrangement by schools, the EPD, in collaboration with the Education Bureau and the Department of Health (DH), have updated the Handbook of Selection of Lunch Suppliers (the Handbook), which includes encouraging schools to incorporate service requirements on the use of reusable food containers and cutlery in the tender, with a view to making a full-scale use of reusable food containers and cutlery for school lunches by the 2023/24 school year. The DH has also released the updated Handbook in September 2019.

1. Does this mean that the gov't is planning to REQUIRE reusable containers and cutlery by the 2023/24 school year?
2. CAN the gov't require that gov't funded lunch programmes MUST serve in reusable containers?
3. For gov't funded schools, CAN the gov't REQUIRE all food service providers to serve in reusable containers only?

3.4.1 EPS lunch boxes are non-biodegradable, and difficult, if not impossible, to recycle. As their adverse impacts on the environment are widely known, school lunch suppliers no longer use them for providing meals in schools.

1. Does the following mean that school lunch service providers are NOT ALLOWED to serve in EPS? https://www.wastereduction.gov.hk/en/schools/green_lunch.htm#2 (referring to 3.4.1 below)

Recycling Potential - A PP lunch box usually weighs about 30g with 100% plastic content. An EPS lunch box, on the other hand, weighs less than 10g, and is largely composed of air. PP lunch boxes are no doubt of higher recyclable value. At present, there are several recyclers in Hong Kong who provide services of collecting, washing and baling of used PP lunch boxes. If cleaned properly, used PP lunch boxes are no different from other plastic waste and more recyclers would be interested to recover them. Nevertheless, concrete arrangement has to be made between schools and lunch suppliers on their recovery, or such lunch boxes will still be disposed of at landfills.

1. Does this statement mean that there is a REQUIREMENT that if PP lunch boxes are used they MUST be collected for recycling?
2. Will a requirement for lunch service providers / schools to collect and recycle PP lunch boxes be considered for the future?

If it is not the intention to require all government schools (and others if possible) to use reusables, a formalised programme of collection of these disposable items should be coordinated Hong Kong-wide. The food waste could also be managed properly side-by-side with this programme and sent to the organic food waste treatment facilities instead of the landfill.

4.4 Do not Use Disposable Cutlery

Whichever the meal arrangements, please arrange for lunch suppliers to provide reusable cutlery that is washable and durable or encourage students to bring their own sets.

Given that it is stated earlier that cutlery is 10% of the total plastic, if disposable cutlery was NOT ALLOWED, it would easily solve the problem. The students can bring their own cutlery.

5. Recommendations for School Lunch Suppliers

5.2 Handle PP Lunch Boxes Properly

Please arrange to recycle the used PP lunch boxes properly, and provide relevant and accurate information to schools.

5.4 Provide Reusable Cutlery

Please stop using disposable cutlery. You may provide students with washable and reusable cutlery instead.

1. Is the gov't doing anything to support Lunch Suppliers with 5.2 as it may be costly for the lunch supplier?

While looking into Green Lunch programme, I found the following statement:

'At present, solid waste is divided into some 60 categories, of which the “dining wares made of plastic/poly-foam” covers basically all types of disposable food and drink containers and cutlery.' From

https://www.wastereduction.gov.hk/sites/default/files/en/materials/school/school_green_lunch_guideline.pdf

1. Where can the solid waste information broken down into some 60 categories be found?

Smart Water Dispensers

23. The EPD will launch a pilot scheme in 2020-21 to encourage students to inculcate a living culture of “bring your own bottle”. We will provide smart water dispensers with their exteriors designed by students to about 80 primary and secondary school premises via contractors, and support the schools to carry out relevant education and experiential activities, such as signing a charter to cease the sale of bottled water, for conveying green messages such as waste reduction at source and clean recycling to students in an interactive approach

1. How will you determine how many water dispensers a school will receive? One water dispenser for a school is not enough and it will depend on the number of students. A programme cannot be judged as successful or not unless there are sufficient numbers of water refill stations.

26. Therefore, the Government stated in the 2017 and 2018 Policy Addresses to implement the central collection service for all types of waste plastics from non-commercial and non-industrial (non-C&I) sources, so that these recyclables can be processed more cost-effectively, and to raise public confidence in the waste separation and recycling system.

The EPD is rolling out a 2-year “Pilot Scheme on Collection and Recycling Services of Plastic Recyclable Materials” in three different districts (i.e. Eastern District, Kwun Tong and Sha Tin), through which contractors are engaged under service contracts to provide free collection service for waste plastics from non-C&I sources such as public and private housing estates, schools and public institutions, Community Recycling Centres (CRCs) and CGSs in the districts. A wide range of recyclables can be collected under the Pilot Scheme, including plastic bags (e.g. carrier bags, rice bags, plastic packaging bags), plastic containers (e.g.

plastic bottles, plastic buckets, plastic boxes, microwave containers, yogurt cups, tofu boxes), polyfoam (e.g. fruit sleeve nets, polyfoam boxes, protective polyfoam materials), plastic tableware, plastic straws, CDs, bubble wraps and other plastic packaging materials. The contractor will further process the plastics collected into plastic raw materials or recycled plastic products to be exported or supplied to the local market so as to ensure that the waste plastics collected are properly handled.

1. What is the definition of plastic raw materials?
2. Are there recyclers in HK who are processing rice bags, plastic packaging bags, plastic straws, CDs and other plastic packaging materials into plastic raw materials or recycled plastic products?
3. What system of checking has been put into place to ensure that all plastic that has been collected gets processed into plastic raw materials or products?
4. Is it acceptable to export mixed bales of plastic under this programme? What about Basel in Jan 2021?

Note that the problem is not only the collection, it is facilities and systems to handle the plastic once collected. This trial is not addressing the full problem.

...provide free collection service for waste plastics from non-C&I sources such as public and private housing estates, schools and public institutions, Community Recycling Centres (CRCs) and CGSs in the districts. (from the above paragraph)

1. I thought that CRCs and CGSs already receive funding for transportation of their waste plastics? Is this not a duplication of services?
2. Why don't CGSs accept polyfoam if this system will pick up from them?

27. To effectively monitor the contractors, the EPD requires the contractors to implement a comprehensive monitoring plan including installation of Global Positioning System on collection vehicles, as well as electronic data recording and installing surveillance camera systems at processing plants.

1. Please explain the benefits of having each contractor set up their own monitoring systems?

28. Through open tendering, services under the Pilot Scheme in Eastern District have progressively commenced since late January 2020. As at March 2020, about 72 housing estates, buildings and other premises have been registered to participate in the Pilot Scheme, which covers 33% of the total population in Eastern District, and the total quantity of waste plastics collected during this period was about 17 tonnes. In addition, services under Pilot Scheme in Kwun Tong and Sha Tin districts are expected to commence in the third quarter of 2020.

1. The population in 2016 in the Eastern District was 555,000. If 33% of the population was covered, that means 183,000 people. This is 2.6% of the population. Based on 2,000 tonnes per day, 183,000 people would have created 52 tonnes a day and over 2 months (60 days) they would have 3,120 tonnes of waste plastic. So the project collected 5.4% of the plastic waste created.
2. What are the target collection rates in this pilot scheme for each district and are they based on population?

Reducing the Use of Microbeads

35....

We plan to roll out the voluntary scheme in early 2021 through launching a “Microbead-free Charter” in collaboration with the trade. Participants, taking due consideration of their operational conditions, can set their own targets and timetables for ceasing the production, importation and sale of PCCPs containing microbeads and strive to achieve the targets within a pre-set timeframe. Before implementation, we will collect views from the trade on the mode and design of the voluntary scheme, with a view to formulating the details including monitoring methodology, timetable and effectiveness assessment, etc. During the course of the scheme, we will also follow up on the participants’ phase-out progress and carry out complementary publicity and education activities to enhance public awareness and knowledge about microbead-related subjects. **Besides, we are planning to conduct a survey starting in early 2021 to find out the amount of microplastics in local domestic sewage, treated effluent discharged from sewage treatment works and surface runoff collected by storm water drains. The survey results would be conducive to further studies on the feasibility and technology of removing microplastics from sewage at sewage treatment works.**

1. It would make more sense to stop the microbeads at source rather than remove them at the sewage treatment works. i.e. a ban on products with microbeads in them
2. What is the surface runoff collected by storm water drains being tested for?
3. Is this water diverted to the sewage treatment facilities or does it normally go straight out to sea?

https://ag.ny.gov/pdfs/2015_Microbeads_Report_FINAL.pdf

Discharging Microbeads to our Waters: An Examination of Wastewater Treatment in New York

‘Treatment plants are not designed to remove microbeads from the wastewater stream, and treatments potentially effective at removing microbeads are unproven. Even if effective treatment technologies are found to be available, the potential cost and time necessary to retrofit wastewater treatment plants with such technology is likely to be substantial. Prevention of use in personal care products is a more efficient approach to address the emerging problem of microbead pollution in New York’s waters.’

Recycling of waste plastics

23. Members were concerned that the recycling capacity for waste plastics processed by approved projects under the Recycling Fund could not meet the demand, given a daily disposal quantity of about 2 000 tonnes of such waste in Hong Kong. They urged the Administration to introduce more support measures dedicated for promoting recycling of waste plastics. Besides, some waste plastics recyclers were unable to apply for funding support under the Recycling Fund because their operations were inconsistent with the planned use of the land. There were also many complaints about the environmental nuisances arising from plastic recycling operations near residential areas, making it difficult for the operators concerned to obtain relevant waivers of lease conditions from the Lands Department. They asked if the Administration could strengthen coordination with the Lands Department and proactively assist Recycling Fund applicants if necessary in applying for waivers of lease conditions as well as allocate suitable sites (such as restored landfills) for the formation of an industrial cluster for plastic recycling.

24. The Administration explained that the recovery rate of waste plastics was low mainly due to the high transportation costs involved. As such, recyclers were encouraged to purchase equipment to reduce the operating costs of waste plastics recycling through obtaining funding from the Standard Projects programme under the Recycling Fund. To further increase the recovery rate of waste plastics, the Administration planned to install RVMs under the pilot scheme to collect plastic beverage containers, and provide free collection service for waste plastics from non-C&I sources.

The comment above from members is concerning the recycling capacity for waste plastics not being able to meet the demand. The response did not address the comment.

1. Does the gov't know whether there is sufficient capacity to process all of the waste plastics collected by this scheme, and in the future the amount of plastic created?
2. There will be capacity for the drink bottles and HDPE bottles. But what about the other plastic?
3. Does the gov't have an idea of what recyclers are doing and the volumes they can handle once these materials are collected?

25. The Administration advised that grantees of the Recycling Fund were required to comply with relevant legal requirements, including land lease conditions. If there were public complaints about the recycling operations, it would be difficult for the recyclers concerned to obtain waivers of lease conditions from the Lands Department. A more practical and efficient approach was to encourage such recyclers to **relocate their operations to suitable places. Accordingly, a new measure was introduced in January 2019 under the Recycling Fund such that eligible applicants would be offered subsidies for relocating their operations, such as from recycling sites in non-industrial zones to industrial buildings or land zoned for industrial purpose. The limit of such subsidies was 50% of market rent as assessed by the Rating and Valuation Department.**

1. How many companies were able to benefit from this new measure?
2. How many companies applied unsuccessfully?

3. Is there any feedback from the recyclers about this?

27. The Administration advised that according to relevant overseas literature and scientific research findings, there was no evidence showing that microplastics had significant impacts on the environment, ecology and public health. While some overseas jurisdictions had prohibited the sale of PCCPs containing microbeads by legislative means, some others (such as Australia and the Netherlands) had taken a voluntary approach. As observed, with the introduction of a voluntary phase-out programme in 2017, currently about 97% of PCCPs in the Australian market were free of microbeads. The Administration planned to launch a voluntary phase-out scheme for microbead-containing products in the second half of 2020 and would review the effectiveness of the scheme two years after its launch so as to assess whether legislative control over products containing microbeads should be adopted in Hong Kong.

The statement that 97% of PCCPs in the Australian Market were free of microbeads is insufficient information unless we know what the percentage was before the voluntary phase out. It would also be helpful to understand what percentage of the PCCPs have microbeads or an alternative to microbeads in them. Most PCCP products won't have this type of scrubbing agent in them to start with.