





## GREEN HONG KONG

## Reducing Waste at the Source



The proper treatment of waste is one of the most important aspects of managing a city well. Over the past decade, Hong Kong's waste management policies have continued to develop with an increased focus on sustainable development.



Promotional booths set up in different parts of Hong Kong to educate the public on waste reduction, source separation of waste, and recycling.

Hong Kong currently disposes about 13,500 tonnes of waste each day, 9,000 tonnes (or 70%) of which is municipal solid waste, increasing the burden of the city's landfills. It is estimated that the three strategic landfills will reach their respective capacities by 2014, 2016 and 2018, so it is clear that the sole use of landfills to handle waste is not sustainable. As such, we must implement a sustainable waste management plan for Hong Kong. Like other major cities in the world, Hong Kong needs to first reduce waste at source. The Environmental Protection

Department (EPD) launched its source separation of domestic waste programme in 2005, which covers over 80% of Hong Kong's population today.

### Community Recycling Network

To further advance waste reduction and recycling efforts, the EPD has collaborated with related government departments, district councils, local communities, property management organisations, environmental and community service groups, schools, and private organisations to set up recycling collection points through a community recycling network, where information about waste reduction and recycling can also be distributed to the public to increase awareness of environmental protection. Recyclables of low commercial value, such as waste plastics, glass bottles, and small waste electrical and electronic equipment will be collected at these recycling points.

### **Exploring Waste Charging**

Through increased promotional efforts in waste reduction and recycling, the EPD hopes to increase the city's current waste recovery rate of 52% to 55% by 2015. By introducing new producer

responsibility schemes and expanding on current ones, the EPD is committed to encouraging reduction of waste at source. At the same time, the EPD has completed a three-month <u>public consultation</u> on waste charging to reduce municipal solid waste at source. The experience of other cities adopting quantity-based system, proxy system, fixed charge, and partial charging are set out in the consultation document. Key considerations for implementation of waste charging in Hong Kong are also analysed.

### Working Together to Reduce Waste

Besides considering various waste reduction measures, the consensus of the community and public support are crucial. The experience of cities implementing waste charging systems shows that it has significant impact on waste reduction. To successfully launch waste charging, it should be complemented by a change in waste collection modes, public's behaviour and making relevant regulations. In the face of Hong Kong's mounting waste problem, the public must work together to reduce waste by changing their living habits and increasing the waste recovery rate of the city through reducing waste at source.









# Reducing Waste in the City

## Reducing Waste at Schools



Through the interesting environmental activities in campus, students' understanding of waste reduction and recycling can be enhanced.



A waste recycling corner is set up at school to encourage students to participate in recycling.

### Let's all do our part

The Government promotes environmental education at schools to cultivate students' waste reduction habits.

Our children are the future of Hong Kong, and cultivating good waste reduction habits during their school years is paramount. With this, schools have continually been an important partner to the Government in terms of environmental education, and Fung Kai Innovative School (FKIS) is a prime example. After receiving The Ninth Hong Kong Green School Award, and participating in the recent "Reduce Your Waste and Recycle Your Plastics" campaign, FKIS aims to raise its students' awareness of waste reduction and recycling.

Through specially designed recycling bins at the recycling corner at school and environmentally focused teaching materials and plays, students are encouraged to recycle plastic bottles. Managed by student ambassadors, the recycling corner displays information on waste reduction, source separation of waste, and recycling. The school also makes use of game cards, videos, bulletins, and worksheets to teach students about waste reduction and recycling, as well as the use of waste plastics.

When recycling plastic bottles, students are urged to clean the bottles, remove the covers and labels before placing them into the recycling bins. The campaign encourages students to separate their waste at source and to relay information about waste reduction to their families so that they may participate in waste reduction activities as well.

The "Reduce Your Waste and Recycle Your Plastics" campaign is jointly organised by the Environmental Campaign Committee, the Yan Oi Tong EcoPark Plastic Resources Recycling Centre, the Education Bureau, and the EPD, with over 100 primary and secondary schools in participation at present. Schools with outstanding performance will be commended at a special event before the end of the school year.

## Voice of the People

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"Over the past few years, the environmental levy on plastic bags has shown very positive results, so the concept of waste charging now seems appropriate."

Mr Chan Clerk "I will set a good example to my children by minimising waste at home."



Ms Wong Housewife









### A Better Environment

## Electric Vehicles Drive into a New Era of Green

With its dense population and congested traffic conditions, Hong Kong's roadside air pollution indices often reach high levels and the problem should not be ignored.



The Government has been implementing various measures in recent years to improve the city's air quality. In addition to subsidising the replacement of Euro II diesel commercial vehicles, the Government has also widely promote the use of electric vehicles.

As electric vehicles do not have tailpipe emissions, they can effectively improve roadside air quality and are energy efficient. Electric cars currently available for sale in Hong Kong reach top speeds of 130km/h, and have a range of 160km after fully charged if operated without air conditioning – enough to fulfill most Hong Kong drivers' needs.



The Secretary for the Environment, Mr Edward Yau, French Secretary of State for Transport, Mr Thierry Mariani, and guests participate in the opening ceremony.



Powered by electricity, electric vehicles do not have tailpipe emissions and can improve roadside air quality.

Government Promotes the Use of Electric Vehicles

French automaker, Renault, introduced its new four-door electric sedan, Fluence Z.E., at an event held at Hong Kong Science Park on

March 16, 2012. The Secretary for the Environment, Mr Edward Yau, announced that the Government will purchase 30 of these cars to be distributed to various departments for use by the third quarter. The Government has also implemented other measures to support the use of electric vehicles, including waiving the first registration tax on electric vehicles and increasing the number of charging facilities in Hong Kong.

Over the years, the Government has actively encouraged various automakers to introduce their electric vehicles to Hong Kong, while working closely with relevant sectors to set up a comprehensive charging facilities network and other necessary measures. As of the end of March 2012, Hong Kong has seen over 300 electric vehicles on its roads, a significant increase from 16 in 2009, and a positive indication of the Government's efforts in promoting the use of electric vehicles.

## **Public Opinions**



"The roadside air quality can be improved. I hope that electric vehicles can help to improve the environment."

Mr Lau

Truck driver

to start using electric vehicles. The public should support this."

"It is the perfect time for Hong Kong













# Putting Words into Action

## An interview with Professor Paul KS Lam



Chairman, Advisory Council on the Environment Vice-President (Student Affairs) and Chair Professor of Biology, City University of Hong Kong



To further tackle Hong Kong's waste problem and come up with sustainable waste management solutions, people from different sectors are working together to explore new options. Environmental studies expert and Chairman of the Advisory Council on the Environment (ACE), Professor Paul KS Lam, believes that waste charging will encourage the public to reduce waste through behavioural change.

### What do you think is Hong Kong's most pressing environmental problem now?

In comparison to air and environmental pollution, I believe our waste management problems are the most pressing issue. According to government figures, Hong Kong disposes over 9,000 tonnes of municipal solid waste each day and our landfills will reach their capacities within a matter of years. The city currently finds itself in a serious and precarious time

### How should we tackle this problem?

Currently, about 50% of waste is being handled under the "reduce, reuse, recycle" strategy, so there is still room for improvement. To enhance our waste recovery rate in the short term, it is imperative that we increase awareness of the concept of environmental protection among the public and strengthen environmental education. I believe our priority should be to implement a municipal solid waste charging scheme as an incentive, thereby increasing the public awareness of environmental protection and minimising waste generation.

#### How should waste charging be implemented and carried out?

As the concept of waste charging is new, the public will need time to adapt, so I think partial implementation would be most appropriate, but it should not be delayed. In terms of details, I would suggest using designated environmental rubbish bags to charge by volume as an accurate and hassle-free charging method.

### The ACE recently hosted a forum to consult the public on waste management policies. How was the response?

Many community groups offered valuable opinions on waste charging that day, including the scheme's target audience and its purpose. In the future, we will provide additional factual data so that the public will have a comprehensive understanding of the issue.

### Do you have tips on environmental protection?

In terms of environmental protection, I believe your heart has to be in the right place so that you can develop healthy living habits one step at a time. For example, at the office, our colleagues have already developed habits of using both sides of paper when printing, and recycling waste paper. In my daily life, I try to minimise waste by thinking ahead and taking extra steps for the environment, because everything we do today will have an impact on future.

#### **Environmental Facts**

Know More, Do Better

and Figures

Hong Kong currently disposes over 13,500 tonnes of waste every day, 9,000 tonnes (or 70%) of which is municipal solid waste. It is enough to fill three Olympic-sized swimming pools. As at the end of 2011, the three strategic landfills were already at half capacity, and it is estimated that they will reach full capacity by 2014, 2016, and 2018 respectively. Hong Kong is currently facing a mounting waste problem, so we should all do our part to reduce, recycle and separate our waste at source.

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## Green Living



Turn old clothes into cloth bags



Bring your own bag and say no to plastic bags



Make mosquito traps out of used plastic water bottles

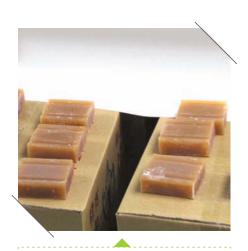


Educate the next generation and encourage them to recycle

It's important to handle waste properly. The less waste there is, the easier it will be to manage! In our daily lives, there are many ways to minimize waste generation. With just a little effort, we could save the environment while making our own lives even more convenient.



Use petrol cans and other discarded materials to create environmentally friendly musical instruments



Produce soap from waste cooking oil



Bring your own water bottles and cutlery, and avoid using disposables.



Use food waste for composting







## **Activities**



The Secretary for the Environment, Mr Edward Yau, states that to successfully implement waste charging, we will need the full support of the community to transform living habits

## Consultation on Waste Charging Building Consensus in Community

Hong Kong is facing an imminent waste problem. At the launch of public consultation on municipal solid waste charging held on January 10, 2012, the Secretary for the Environment, Mr Edward Yau, stated that waste charging can be an incentive to induce change in living habits, encouraging the public to reduce waste and separate waste at source, hence reducing the amount of waste for final treatment.

Mr Yau stated that overseas experience shows that waste charging is an effective means of reducing the volume of waste. "To successfully implement waste charging, we will need to have other complementary measures. We hope that through this public consultation, we will be able to build a consensus on the way forward for waste charging, and, on this basis, further discuss in details other key elements of the charging system," said Mr Yau.

He also stated that our waste problem should be tackled through a multi-pronged approach, including separation of waste at source. The Government has already implemented a series of sustainable waste management measures including various waste reduction and recycling programmes.

## Joint Effort to Recycle Food Waste



On February 3, 2012, the EPD hosted a Commercial and Industrial Food Waste Recycling Sharing Session at the Hong Kong Central Library, which was attended by over 200 representatives from the catering, hotel and property management industries, commercial and industrial organisations, academia government departments. Sharing their experience from the Food Waste Recycling Partnership Scheme, representatives discussed the benefits of food waste source separation, food

waste reduction, and using food waste treatment and recycling facilities.

Delivering her opening speech, the Permanent Secretary for the Environment, Ms Anissa Wong, spoke about the Government's efforts to reduce food waste through promotional and educational initiatives. She suggested that unavoidable food waste be recycled as far as possible and properly treated with modern treatment facilities.



The Permanent Secretary for the Environment, Ms Anissa Wong, indicates that the EPD continues to develop guidelines for various sectors to encourage more industries to recycle

Durina the session. Ms Wona participating organisations with certificates to acknowledge their efforts in the management of food waste. She stated that sharing sessions were a good opportunity for various organisations to share their valuable experiences in food waste management, and encouraged more organisations to adopt good food waste management practice.

The Food Waste Recycling Partnership Scheme was launched in June 2010 to encourage and promote good food waste management practices and to minimise food waste. Up till February of this year, the EPD has provided training on food waste source separation to over 50 different participating organisations, and has collected approximately 600 tonnes of food waste to the Kowloon Bay Pilot Composting Plant for recycling, producing 120 tonnes of compost for use in local farms and schools