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## **ACE Paper 21/2017**

*For discussion on 6 November 2017*

### **2017 Policy Address Policy Initiatives of Environment Bureau: Environmental Protection**

#### **PURPOSE**

This paper sets out the major policy initiatives of the Environment Bureau (ENB) and the Environmental Protection Department (EPD) in the 2017 Policy Address.

#### **KEY INITIATIVES**

##### **Combating Climate Change**

2. The Paris Agreement, already came into force in November 2016, applies to Hong Kong as well. The Government is fully committed to joining hands with the international community in combating climate change, and has adopted a series of key measures on mitigation, adaptation and resilience as set out in Hong Kong's Climate Action Plan 2030+<sup>1</sup> released in January 2017. The Chief Secretary for Administration will continue to chair the Steering Committee on Climate Change to steer and coordinate the actions of various bureaux and departments.

3. In order to achieve our target to reduce our carbon intensity by between 65% and 70% by 2030 compared with the 2005 level<sup>2</sup>, we will gradually phase down coal-fired electricity generation, i.e. replace the majority of the coal-fired generation units which are due to retire by cleaner energy sources by 2030. We will also actively promote the development of renewable energy (RE) as well as energy efficiency and conservation (EE&C), and the details are set out in paragraphs 7 to 12 below.

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<sup>1</sup> [https://www.climateready.gov.hk/files/report/en/HK\\_Climate\\_Action\\_Plan\\_2030+\\_booklet\\_En.pdf](https://www.climateready.gov.hk/files/report/en/HK_Climate_Action_Plan_2030+_booklet_En.pdf)

<sup>2</sup> This is equivalent to an absolute reduction of 26-36%, resulting in per capita emissions of 3.3-3.8 tonnes in 2030. (Note: The per capita emissions were 5.7 tonnes in 2015.)

4. The Climate Change Working Group on Infrastructure (CCWGI) serves to coordinate efforts among works departments to enhance our adaptation capability to combat climate change. In order to keep abreast of time and enhance resilience against extreme weather, the CCWGI is actively pursuing studies to review the design standards and the resilience of critical infrastructure of works departments.

5. Separately, the Government will also strengthen analysis on climate change, forecast on extreme weather, and promotion of disaster preparedness to enhance the city's resilience against climate change.

6. Apart from the above, the Government will continue to support non-profit-making organisations to carry out public education activities and demonstration projects on climate change. The Environment and Conservation Fund (ECF) has agreed to allocate \$10 million for the purpose. Bureaux and departments have started to conduct regular carbon audits on major government buildings this year to explore room for carbon reduction and will disclose their carbon emission information.

## **Renewable Energy**

7. The Government will continue to apply RE on a wider and larger scale in the coming years based on mature and commercially available technologies with the public sector taking the lead, and creating the conditions to enable the private sector to consider adopting RE. We have also raised targets of use of RE in new schools, Government buildings, open spaces and parks and will use the earmarked \$200 million for the provision of RE installation at existing Government buildings, venues and facilities.

8. In addition, the Water Supplies Department (WSD) commissioned its first pilot floating solar power system at Shek Pik Reservoir in February 2017, while its second pilot project at Plover Cove Reservoir will commence operation in end-2017. WSD has engaged a consultant to review the technical findings in respect of the pilot projects and study the feasibility and strategy of implementation of floating solar farms on a larger scale at impounding reservoirs in Hong Kong. The consultancy study is expected to complete by end-2017.

9. The Government entered into the post-2018 Scheme of Control Agreements (SCAs) with the two power companies in April 2017 and promotion of RE will be a key focus of the post-2018 SCAs. Among other measures, Feed-in Tariff (FiT) will be introduced in the next regulatory period to encourage the private sector and the community to consider investing in distributed RE as the power generated could be sold at a rate higher than the

normal electricity tariff rate to cover the cost of their investments in the RE systems and their power generation. At the same time, RE Certificates will be sold by power companies. Through these RE Certificates, the community can show its support for RE. The revenue from such sale will also help alleviate the overall tariff impact on all consumers brought about by the introduction of the FiT scheme. The power companies will also facilitate and improve the distributed RE connection arrangements. In addition, incentive schemes will be put in place to encourage the power companies to develop RE and facilitate the development of distributed RE. We are now discussing with the power companies details of the FiT and RE Certificates Schemes, with a view to launching them as soon as practicable when the next SCA periods commence.

## **Energy Saving**

10. Buildings account for some 90% of electricity consumption and over 60% of greenhouse gas emissions in Hong Kong. Raising the energy performance of buildings is an important measure to mitigate the negative effect of climate change. Following completion of energy audits on about 350 major Government buildings earlier this year, we will deploy the earmarked resources (at least \$500 million) for implementation of energy saving projects in Government buildings. Coupled with the green housekeeping measures to be implemented by bureaux and departments, we are on track to achieve the 5% electricity saving target for Government buildings from 2015-16 to 2019-20, using the operating conditions in 2013-14 as the baseline. We have also published the technical guidelines on retro-commissioning (RCx) following a pilot test in six Government buildings and will continue to organise seminars and sharing sessions with professional bodies and relevant trades to promote RCx as a cost-effective means for enhancing energy efficiency in existing buildings.

11. The Government will continue to capitalise on the 4Ts framework, namely target, timeline, transparency and together, to enlist participation from the community to achieve energy saving in private-sector buildings through multiple channels, including RCx, retrofitting, energy audit, green procurement, outperforming the statutory energy saving requirements, and seeking green building certification, such as BEAM Plus New Buildings and BEAM Plus Existing Buildings. On the regulatory front, we will continue with the legislative amendments to cover five additional products in the Mandatory Energy Efficiency Labelling Scheme<sup>3</sup>, and has commenced a review of the energy efficiency standards as stipulated in the Building Energy Code under the Buildings Energy Efficiency Ordinance.

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<sup>3</sup> Televisions, electric storage water heaters, induction cookers, washing machines with a rated washing capacity exceeding 7 kg but not exceeding 10 kg, and room air conditioners of reverse cycle type (i.e. with both heating and cooling functions).

12. The Government is also discussing with the power companies on ways to further promote EE&C in the context of the post-2018 SCAs. Under the post-2018 SCAs, existing incentive schemes in relation to promotion of EE&C will be expanded while new elements will be introduced. More funds will be available under the existing energy efficiency funds of the power companies to support the carrying out of retrofitting and retro-commissioning, including the implementation of building-based smart/IT technologies to enhance the energy efficiency of a wider coverage of buildings. In addition, we will work with the power companies to introduce new energy saving funds to further support other EE&C programmes and to expand the scope of the energy saving loan funds. The power companies will also introduce demand response programmes to help reduce maximum demand. The incentive arrangements in relation to the power companies' performance in promoting EE&C under the post-2018 SCAs will be improved to encourage them to further promote EE&C. We plan to brief the Energy Advisory Committee and Legislative Council (LegCo) on the details of the Schemes relating to RE and EE&C under the post-2018 SCAs in the first half of 2018.

## **Air Quality**

### Review of the Air Quality Objectives

13. The current Air Quality Objectives (AQOs) took effect from 1 January 2014. The Air Pollution Control Ordinance requires the Government to conduct a review of the AQOs at least once in every five years and submit to the Advisory Council on the Environment (ACE) a report of the review. We embarked on a review of the AQOs (the Review) in mid-2016 through a working group comprising relevant non-official experts and stakeholders as well as representatives from relevant Government bureaux and departments. The working group has completed discussions of possible new air quality improvement measures and deliberations on the practicability of their implementation within the timeframe up to 2025. It will proceed to assess the potential impact of practicable measures on air quality and evaluate possible scope for further tightening the AQOs. We aim at completing the Review in 2018.

### Mandating Vessels to Use Compliant Fuel within Hong Kong Waters

14. Marine vessels are one of the major local air pollution emission sources. Further to the control measures the Government has implemented in recent years<sup>4</sup>, we will introduce new law to mandate vessels to use compliant fuel (including low sulphur fuel) within Hong Kong waters starting from 1

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<sup>4</sup> Establishment of a statutory cap on the Sulphur content of locally supplied marine light diesel since 1 April 2014 and mandating ocean-going vessels to switch to use compliant fuel while at berth in Hong Kong since 1 July 2015.

January 2019. We estimate that the implementation of the new law could further reduce about 6 340 tonnes of sulphur dioxides and 710 tonnes of respirable suspended particulates from marine vessels in 2020, compared with 2015 emission levels (representing respectively reduction of 55% and 38%).

#### Pilot Scheme on Green Ferry and Green Government Vessels

15. Green technologies for vessels such as electric ferry and hybrid ferry have emerged in recent years although there are only a few applications of these technologies worldwide at the moment. To reduce air pollution and nuisance from ferries, we are studying the technical feasibility of these green ferry technologies and are considering to launch pilot tests for these technologies in the local ferry operations and in the Government fleet to ascertain their viability in local conditions.

### **Waste Management**

#### Municipal Solid Waste Charging

16. A multi-pronged approach has to be taken to promote the “Use less, Waste less” culture, which is crucial to achieving low-carbon living, and waste reduction at source holds the key. The implementation of municipal solid waste (MSW) charging is central to the “Hong Kong: Blueprint for Sustainable Use of Resources 2013 – 2022”. It will create financial incentives to drive behavioural and cultural change, and encourage the community to practise waste reduction and clean recycling more proactively. Having considered the views received on the details of our proposals announced in March 2017, we have refined the implementation arrangements and will brief the Environmental Affairs Panel on the modifications with a view to introducing the Amendment Bill in the LegCo later in the year. Having regard to the time required for the scrutiny of the Amendment Bill and a preparatory period of 12 to 18 months after its passage, it is expected that MSW charging would be implemented in the second half of 2019 at the earliest. Meanwhile, the ECF has been funding community involvement projects to prepare different sectors and stakeholders for the implementation of MSW charging since 2016. More than 30 community involvement projects with a total funding of over \$30 million have been approved so far.

#### Producer Responsibility Schemes

17. To complement the implementation of MSW charging, we will step up our efforts in promoting waste reduction at source and clean recycling. On the producer responsibility schemes (PRs), we are preparing in full steam for the phased implementation of the PRS on waste electrical and electronic equipment (WEEE) (WPRS). The development of the WEEE treatment and

recycling facility at the EcoPark in Tuen Mun is near completion, and the facility is expected to commence operation shortly. Under the WPRS, suppliers of regulated electrical equipment (REE)<sup>5</sup> are required to register as registered suppliers and pay a recycling levy for REE distributed in Hong Kong, while sellers of REE are required to arrange free removal service for consumers on the old equipment they dispose of. We plan to commence the relevant legislative provisions in the third quarter of 2018. We are now working closely with suppliers and sellers to launch a trial scheme on removal service later this year such that the participating sellers can better prepare for the implementation of the measures. As for the regulatory control on abandoned REE, having taken into account the views of Members of the LegCo Subcommittee on the relevant subsidiary legislation and some representatives of the recycling trade, as well as other relevant considerations, we have adjusted the implementation timetable and plan to commence the disposal licensing control, import and export permit control and landfill disposal ban in December 2018. This will allow individual recyclers to have sufficient time to comply with the licence application requirements.

18. As regards the PRS on glass beverage containers, the tendering exercise for the provision of collection and treatment services for the recycling of glass containers is nearly completed. We are in parallel preparing for the subsidiary legislation to provide for the operation details of the PRS on glass beverage containers for introduction into LegCo in the first half of 2018. Besides, we are also conducting a feasibility study on how to implement a PRS for suitable plastic containers.

#### Strengthening Waste Reduction and Recycling Support at the Community Level

19. New outreach teams will be set up under the EPD to help drive behavioural change in the community towards better and more widespread waste reduction and recycling practices. One of the teams' priority tasks is to assist property management companies (PMCs) and residents in practising proper waste source separation and clean recycling, through strengthened field support including regular visits, on-site guidance and hands-on demonstration. The teams will also establish and maintain a direct and effective liaison network with PMCs and residents for disseminating latest green messages, monitoring the waste separation and clean recycling work, offering practical tips to enhance such practices (including funding sources for recycling programmes), and providing suitable assistance in identifying proper recycling outlets. Another major task of these teams is to provide on-site assistance and support, to both domestic and commercial and industrial (C&I) sectors, in

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<sup>5</sup> These include air conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors.

implementing the MSW charging arrangements as well as other waste reduction initiatives, e.g. the WPRS.

20. Currently, the Community Recycling Centres (CRCs), supported by the ECF, have been supporting the collection and recycling of waste plastic bottles, among other low-value recyclables, generated from residential buildings without proper building management. The EPD will, by early 2018, expand the scope of service of these CRCs to receive also waste plastic bottles delivered from other private housing estates and residential buildings (i.e. buildings with some form of property management) on a need basis. The CRCs will continue to receive subsidies from the ECF to transport the waste plastic bottles collected to suitable recycling outlets. To better support the collection and recycling of waste plastic bottles, the EPD will introduce a new service to centrally collect waste plastic bottles received by the CRCs and, where necessary, direct from the sources (i.e. individual residential estates) across the territory for delivery to competent recyclers for onward processing.

21. There is a need to enhance community awareness about the importance of proper source separation of waste and keeping the recyclables clean, and the direct bearing of such necessary practices on their recyclability and recycling value. The EPD will step up its collaboration with the Environmental Campaign Committee to strengthen the current promotional and public education efforts on clean recycling. A new round of promotional campaign will be launched soon to focus on educating the public on how to minimise “contaminants” and “impurities” in waste plastic bottles, in particular plastic containers carrying beverages or personal care products, as well as on how to properly sort waste paper and keep it clean and dry in order to meet the Mainland’s tightened requirements for import of recyclables which will gradually take effect from early 2018 onwards.

### Upgrading the Local Recycling Industry

22. The Government spares no effort in supporting the recycling industry to rise to the challenges ahead, including those associated with the Mainland’s tightened requirements for import recyclables, and to move up the value chain for the sustainable development of the recycling industry in the long run. In this regard, the Advisory Committee on Recycling Fund (RFAC) has continued to streamline the application procedure and operation of the Recycling Fund. It has also launched new dedicated programmes<sup>6</sup> to drive the recycling industry towards quality and efficient business operations, as well as to elevate the

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<sup>6</sup> The RFAC has earmarked \$50 million to support recyclers to purchase compactor trucks for collecting recyclables (including waste plastic and paper) in a more efficient and cost-effective manner. It has also earmarked \$20 million for the industry to secure plastic waste processing facilities. Fundable items include plastics sorters, label and cap removers, washer, dryers, and pelletizers for turning waste plastics into plastic pellets as raw materials to fulfil Mainland’s tightened import requirement.

overall operational standards of the industry through investment in advanced technologies and recycling processes. The EPD together with the RFAC will continue to liaise with the industry and identify and roll out further facilitation measures (e.g. targeting waste paper) and dedicated programmes to address its needs. In parallel, the Government will continue to provide suitable land for the local recycling industry, including the EcoPark, short-term tenancy sites and berths at Public Cargo Working Areas to facilitate the industry's development. The strengthened measures to promote better waste source separation and clean recycling mentioned in paragraphs 19 to 21 above in particular the proposed MSW charging (paragraph 16) will also help enhance the recyclability and economic value of the recyclables, thereby enlarging the supply of suitable recyclables for the recycling industry.

23. Looking ahead, we will keep engaging the recycling industry and relevant stakeholders in exploring more long-term, effective and diversified outlets for various types of recyclables. Among other things, the EPD is examining the feasibility of incubating a local recycled product manufacturing industry through, for example, leveraging on the well-established infrastructural support provided in the EcoPark.

### Food Waste Recycling

24. Food waste constitutes about one-third of the total municipal solid waste disposed of at landfills. Instead of landfilling food waste, a more sustainable way is to minimise food waste generation through instilling a "Food Wise" culture in the general community and turning unavoidable food waste into energy through the organic resources recovery network being developed. The Organic Resources Recovery Centre (ORRC) Phase 1 at Siu Ho Wan will commence operation in early 2018. We will soon apply for the LegCo's funding approval for ORRC Phase 2 at Sha Ling, which is planned for commencing operation in 2021. We will also start carrying out the feasibility study and Environmental Impact Assessment for ORRC Phase 3 at Yuen Long. Besides, to ensure that food waste is source-separated and collected properly for onward recycling at ORRCs, the EPD will set up a new Food Waste Recycling Group to, among other things, study and formulate new regulatory measures on food waste disposal, including mandatory source separation of food waste starting with the significant food waste generators in the C&I sectors, and continue to implement the Food Wise Hong Kong Campaign with a view to enhancing the community's "Food Wise" awareness focusing on waste reduction, source separation and recycling.

### **Nature Conservation**

25. The survival of elephants is under threat due to illegal ivory trade. In June 2017, the Government introduced into the LegCo the Protection of

Endangered Species of Animals and Plants (Amendment) Bill 2017 to ban the import and re-export of elephant trophies, phase out the local ivory trade, and to increase the penalties for the smuggling and illegal trading of endangered species. We will continue to work with the relevant Bills Committee of the LegCo with a view to having the Bill passed as soon as possible. We consider that, in line with the common international practice, no compensation should be provided to the ivory trade, so as to avoid sending a wrong message which might lead to further poaching of elephants and smuggling of illegal ivory into Hong Kong by illicit traders for seeking possible compensation. We will offer appropriate assistance to the affected ivory craftsmen as far as possible.

### **Countryside Conservation**

26. Our countryside areas are rich in ecological, architectural and cultural resources. To enhance the conservation of our remote countryside areas, the Government will set up a multi-disciplinary Countryside Conservation Office (the Office) to coordinate conservation projects to protect the natural ecology of the countryside, revitalise its village architectural environment, and conserve the precious cultural resources.

27. The Government has earmarked \$1 billion for the Office to carry out countryside conservation projects, such as basic infrastructure, minor improvement works to rehabilitate the natural ecological, cultural and architectural environment, as well as activities to promote eco-tourism and other local economic activities to respond to the aspirations of the community for urban-rural symbiosis. The Office will strive to collaborate with NGOs in carrying out its work. Among other others, an advisory committee involving stakeholders from different sectors of the community will be set up, to advise on the funding applications received by the Office and monitor the implementation progress of the funded projects, etc. The priority task of the Office is to implement a series of diversified and innovative activities and programmes to enhance the countryside revitalisation efforts at Lai Chi Wo, as well as to implement an ecological conservation project at Sha Lo Tung. The Office will review the implementation and effectiveness of the projects from time to time and progressively extend its efforts to other remote countryside areas. We plan to provide further details to the LegCo at a later stage.

### **Water Quality**

28. With the full commissioning of Stage 2A of the Harbour Area Treatment Scheme (HATS) in December 2015, the water quality of Victoria Harbour has further improved. While we will continue to monitor the improvement of water quality of Victoria Harbour, we will also strive to enhance the quality of the coastal waters of the harbour and mitigate the nearshore odour problems. For instance, the Government has commenced the

upgrading of Kwun Tong preliminary treatment works and sewerage in West Kowloon and Tsuen Wan in September 2017. The construction of Cherry Street dry weather flow interceptor, enhancement of Kwun Tong sewage pumping station and rehabilitation of trunk sewers in Kowloon and New Territories will commence within this year. In addition, the consultancy study to further enhance the nearshore water quality and the general environment of Victoria Harbour will soon be completed. We will formulate and implement progressively more targeted pollution control measures and engineering solutions in accordance with the study recommendations.

29. We will collaborate with the Development Bureau to implement a comprehensive risk based “Rehabilitation Project for Aged Storm Drains and Sewers” for investigating and rehabilitating aging sewers in an orderly manner with a view to preventing environmental risk caused by the damaged sewers and ensuring public safety. We will also enhance communication and collaboration with relevant District Councils and Rural Committees for implementing village sewerage programmes for improving rural environment and facilitating long-term sustainable development.

## **OTHER ON-GOING INITIATIVES**

30. We will also continue to take forward a wide range of other on-going initiatives. A summary is at **Annex**.

**Environment Bureau**  
**October 2017**

**2017 Policy Address  
Policy Initiatives of Environment Bureau:  
Environmental Protection**

**On-going Initiatives**

<b>Area</b>	<b>Progress</b>
<b>Energy Conservation</b>	
District Cooling Systems (DCS)	<ul style="list-style-type: none"><li>● The Government will consider the provision of DSCs in new development areas, and prepare for the implementation of the remaining works of the DCS at Kai Tak Development.</li></ul>
<b>Air Quality</b>	
Control of emissions from power plants	<ul style="list-style-type: none"><li>● The Government has gazetted the Seventh Technical Memorandum (TM) for Allocation of Emission Allowances under the Air Pollution Control Ordinance to tighten the emission control of power plants from 2022 onwards. As compared with the emission allowances for 2021 set under the Sixth TM, the Seventh TM will further tighten the emissions of Sulphur Dioxide (SO<sub>2</sub>), Nitrogen Oxide (NO<sub>x</sub>) and Respirable Suspended Particulate (RSP) by 25%, 15% and 11% respectively for the electricity sector. Subject to negative vetting by the Legislative Council (LegCo), the new set of emission allowances will take effect from 1 January 2022.</li></ul>
Green Road Transport	<ul style="list-style-type: none"><li>● Since the launch of an incentive-cum-regulatory scheme in March 2014, about 56 100 pre-Euro IV diesel commercial vehicles (DCVs) (i.e. about 68% of the target vehicles) have been scrapped under the scheme as at end August 2017. The Government has stopped the renewal of vehicle licences for pre-Euro DCVs from 1 January 2016 and Euro I DCVs from 1 January 2017.</li><li>● The Government is subsidising the franchised bus companies (FBCs) to retrofit their Euro II and III buses with selective catalytic reduction devices with a view to reducing their emissions. A total of about 1 030 eligible buses will be retrofitted</li></ul>

Area	Progress
	<p data-bbox="667 181 1401 219">upon completion of the programme by end 2017.</p> <ul style="list-style-type: none"> <li data-bbox="603 264 1436 607">● The Government has fully subsidised FBCs to procure 36 single-deck electric buses (28 battery-electric buses and eight supercapacitor buses) for trial. 18 battery-electric buses and two supercapacitor buses have commenced the two-year trial. Most of the remaining electric buses are expected to be put into service progressively in the fourth quarter of 2017.</li> <li data-bbox="603 651 1436 1249">● The Government has been actively promoting a wider use of electric vehicles (EVs) by offering the first registration tax concessions for EVs, allowing 100% profits tax deduction for acquiring EVs, providing subsidy for trials of EVs under the Pilot Green Transport Fund (PGTF), granting concessions on gross floor area for EV charging-enabling car parks in new buildings, enhancing the public EV charging network and establishing a dedicated team and hotline to provide relevant information and technical support in setting up chargers. The number of EVs has grown from 96 in 2010 to 11 033 by end of August 2017.</li> <li data-bbox="603 1294 1436 1458">● There were 245 electric vehicles in the Government fleet by end of August 2017. 16 EVs were ordered in 2016-17 and will be delivered in 2017.</li> <li data-bbox="603 1458 1436 1854">● The Government and the commercial sector will continue to enhance the public charging network for EVs. The Government has upgraded 274 public standard chargers to medium chargers at government car parks from 2014 to 2017, and will further upgrade 96 standard chargers to medium chargers at government car parks by early 2018. These medium chargers can reduce charging time up to 60% as compared to standard chargers.</li> <li data-bbox="603 1899 1436 2047">● As at 11 October 2017, the PGTF approved 109 trials with a total subsidy of about \$122 million to test out various green innovative transport technologies including electric taxis, buses and</li> </ul>

Area	Progress
	<p>goods vehicles as well as hybrid buses and goods vehicles.</p> <ul style="list-style-type: none"> <li>● The Government has tightened the vehicle emission standards for newly registered vehicles (except for diesel private cars, buses with a design weight of not more than 9 tonnes, light buses with a design weight of more than 3.5 tonnes, motorcycles and tricycles) from Euro V to Euro VI in phases starting from 1 July 2017 and for newly registered diesel private cars from California LEV II to LEV III starting from 1 October 2017.</li> </ul>
Extending control on volatile organic compounds (VOC)	<ul style="list-style-type: none"> <li>● To further reduce VOC emissions for better air quality, the Government has gazetted the Air Pollution Control (Volatile Organic Compounds) (Amendment) Regulation 2017 to extend the existing control to cover fountain solutions and printing machine cleaning agents. It is estimated that the new control can reduce about 370 tonnes of VOC emissions a year. Subject to negative vetting by the LegCo, the control will take effect from 1 January 2018.</li> </ul>
Collaboration with the Mainland	<ul style="list-style-type: none"> <li>● We will continue to collaborate with Guangdong on scientific air quality studies as well as improvement measures under the Regional Air Quality Management Plan which focuses on power plants, vehicles, vessels and the heavily polluting industrial processes.</li> <li>● Results of the Pearl River Delta regional air quality monitoring network from 2006 to 2016 show that the annual concentration levels of SO<sub>2</sub>, NO<sub>x</sub> and RSP in the region decreased by 74%, 24% and 38% respectively.</li> <li>● Both the HKSAR and Guangdong Provincial Governments started the joint mid-term review in February 2015 to conclude the emission reductions for 2015 and finalize the emission reduction targets for 2020. The review is expected to be completed by end of 2017.</li> </ul>

Area	Progress
Cleaner Production Partnership Programme (CPPP)	<ul style="list-style-type: none"> <li>● The Hong Kong-Guangdong Joint Working Group on Cleaner Production was set up in February 2015 to strengthen co-operation in promoting cleaner production to enterprises in the region. By September 2017, over 2 800 funding applications had been approved under the CPPP since its launch in 2008. In addition, the Hong Kong-Guangdong Cleaner Production Partners Recognition Scheme encourages enterprises to demonstrate efforts in pursuing cleaner production. As at September 2017, 298 enterprises were holding valid commendations.</li> </ul>
<b>Tackling Marine Refuse</b>	
Clean Shorelines	<ul style="list-style-type: none"> <li>● The Government will continue to tackle marine refuse problem through the work of the Inter-departmental Working Group on Clean Shorelines and implement various measures such as enhancing cleaning efforts, stepping up support and provision of facilities, conducting publicity and education programmes, etc. to reduce marine refuse in Hong Kong.</li> <li>● Since October 2016, we have enhanced exchange and communication on various regional marine environmental matters with the Guangdong side through the Hong Kong-Guangdong Marine Environmental Management Special Panel.</li> <li>● We will continue to make use of the notification and alert system on marine refuse which has been put into trial since May 2017 for real-time monitoring and prediction of areas where there will be potential surge in marine refuse so that both sides could effectively deploy resources to tackle the problem.</li> <li>● We will continue to work with the Guangdong side to further improve the existing mechanism and explore ways to manage and reduce marine refuse with a view to further enhancing the regional marine environment.</li> </ul>

Area	Progress
<b>Waste Management</b>	
Landfill Extensions	<ul style="list-style-type: none"> <li>● We are working on the contract procurement for the extensions of South East New Territories (SENT) and North East New Territories (NENT) Landfills, as well as carrying out the consultancy study for the engineering design and site investigation for the extension of West New Territories Landfill.</li> <li>● We will continue to implement the landfill extension projects. With the extensions of the SENT Landfill and NENT Landfill in place, it is estimated that the landfill space could cope with the local waste disposal needs up to late 2020s.</li> </ul>
Restored Landfill Revitalisation Funding Scheme (the Scheme)	<ul style="list-style-type: none"> <li>● After detailed consideration of all applications for Batch 1 of the Scheme in accordance with the established assessment procedures and criteria and having taken into account comments from relevant District Councils (DCs), the Steering Committee (SC) of the Scheme considered the applications from Christian Family Service Centre and Tung Wah Group of Hospitals to be the most meritorious and has invited these organisations to develop detailed proposals to revitalise Ma Yau Tong Central and Tseung Kwan O Stage I Landfill respectively. We will work closely with the selected organisations to take forward the approved projects so that they could be commissioned as soon as possible.</li> <li>● For the other restored landfill under Batch 1 of the Scheme, namely Pillar Point Valley Landfill, the SC considered that there was no suitable application as the applicants in general failed to address the various site constraints in developing their proposals. We will review the development constraints of the site and consider how best to address the issues concerned to facilitate the future after-use of the Pillar Point Valley Landfill.</li> <li>● We will also review the operation of Batch 1 of the Scheme and make recommendations to the SC for improving the operational details of the</li> </ul>

Area	Progress
	Scheme before considering the way forward for the restored landfills.
Integrated Waste Management Facilities Phase 1	<ul style="list-style-type: none"> <li>● We completed the prequalification exercise in 2015 and issued tender invitation for the Design-Build-Operate contract from pre-qualified tenderers in November 2016. We plan to award the contract in first quarter of 2018 and commission the facilities in 2024.</li> </ul>
Planning of Future Waste Management and Transfer Facilities	<ul style="list-style-type: none"> <li>● We commenced the study in 2015 to identify additional bulk transfer and solid waste treatment facilities to meet Hong Kong's needs up to 2041. We plan to complete the study in 2018.</li> </ul>
Food Wise Hong Kong Campaign	<ul style="list-style-type: none"> <li>● We will continue to promote the "Food Wise" culture and appeal to the community to adopt behavioral change to reduce food waste through various publicity and educational programmes. We will promote good practices on food waste reduction, source separation and recycling for commercial and industrial (C&amp;I) sectors, and facilitate donation of surplus food to charitable organisations in the community. As of September 2017, more than 700 organisations have signed the Food Wise Charter and more than 1 000 eateries have enrolled in the Food Wise Eateries Scheme, among which 300 and 390 eateries have been awarded with gold class and silver class respectively.</li> </ul>
Food Waste Recycling Projects in Housing Estates	<ul style="list-style-type: none"> <li>● We will continue to implement food waste reduction and recycling projects at housing estates through funding support by the Environment and Conservation Fund (ECF), with a view to promoting food waste reduction at source and converting the unavoidable food waste into useful compost product. Up to September 2017, a total of 32 housing estates have been supported by the ECF, involving total approved funding of \$32 million. About 3 800 households have registered for the food waste reduction and recycling projects, and messages on food waste reduction have reached some 67 000 households.</li> </ul>

Area	Progress
Provide professional support to schools and tertiary institutions for on-site treatment of food waste	<ul style="list-style-type: none"> <li>● We will continue to provide appropriate professional support to schools and tertiary institutions for practising in-situ food waste recycling, in order to enhance and strengthen teachers and students' awareness of the "Food Wise" culture.</li> </ul>
Implementation of Organic Resources Recovery Centre (ORRC) Network	<ul style="list-style-type: none"> <li>● ORRC Phase 1 will commission in early 2018.</li> <li>● To expedite the commissioning of ORRC Phase 2, we have adopted parallel tendering procedures and will seek funding approval from the LegCo in 2018.</li> <li>● We will start the engineering feasibility study and the environmental impact assessment for ORRC Phase 3 in 2018.</li> </ul>
Food Waste Collection and Delivery to ORRCs	<ul style="list-style-type: none"> <li>● We commenced a study in 2017 to examine and explore the collection and delivery of food waste from domestic, C&amp;I premises, as well as academic and government institutions with a view to drawing up practical and effective modes of food waste collection and delivery for Hong Kong. We plan to complete the study in 2018.</li> </ul>
Food Waste / Sewage Sludge Anaerobic Co-digestion Pilot Trial	<ul style="list-style-type: none"> <li>● The pilot trial involves making use of the existing sewage sludge anaerobic digestion system at the Tai Po Sewage Treatment Works to recycle up to 50 tonnes of food waste per day into energy. We plan to award the contract for the food waste pre-treatment facilities in early 2018 and commence the pilot trial in early 2019.</li> </ul>
Recycling Fund	<ul style="list-style-type: none"> <li>● Since the launch of the \$1 billion Recycling Fund in October 2015, a total of 137 applications have been approved as of end September 2017. Except for approved applications which were subsequently withdrawn, 106 projects are either completed, in progress or ready to start, involving a total funding of around \$81 million. The EPD, together with the Fund Secretariat (Hong Kong Productivity Council), will continue to liaise with</li> </ul>

Area	Progress
	<p>the recycling trade to explore the need for and feasibility of introducing further measures to facilitate the industry to make use of the Recycling Fund to address its needs and to attract more applications which are worthy of support.</p>
EcoPark	<ul style="list-style-type: none"> <li>● A total of 11 lots in the EcoPark have been leased to private recyclers for recycling waste cooking oil, waste metals, waste wood, waste electrical and electronic equipment (WEEE), waste plastics, waste batteries, waste construction materials, waste glass, waste rubber tyres and food waste. We will continue to put up lots for lease in a timely manner to promote investment in advanced technologies and recycling processes.</li> </ul>
Publicity and Education on Waste Reduction and Recycling	<ul style="list-style-type: none"> <li>● The EPD has been encouraging and promoting public participation in waste reduction and source separation through the Source Separation of Waste (SSW) Programme launched in 2005. Over 2 000 housing estates and residential buildings have joined the SSW Programme, covering over 80% of Hong Kong population, and around 1,000 C&amp;I buildings have participated in the SSW Programme.</li> <li>● Since 2012, the 18 DCs, the Home Affairs Department, the Environmental Campaign Committee (ECC) and the EPD have been collaborating closely to implement the Community Participation Programme to raise environmental awareness in the districts and engage the public to adopt green practices in their daily lives. It is estimated that more than 90 000 participants have been reached through activities organized under the programme in 2016/17. The programme in 2017/18 will be organized under the theme of “Reduce Your Waste and Clean Recycle in Your Community”.</li> <li>● The EPD has been collaborating with the ECC to launch a Clean Recycling Campaign since mid-2015 to drive home the significance of keeping recyclables clean. Various</li> </ul>

Area	Progress
	<p>environmental activities and education and promotional programmes on clean recycling have been rolled out and reached more than 100 housing estates. We have launched a new phase of the Clean Recycling Campaign which covers some 80 housing estates.</p>
Community Green Stations (CGSs)	<ul style="list-style-type: none"> <li>● We are making good progress in developing the network of CGSs across the territory to promote environmental education and enhance recycling support for the local community. CGSs in Sha Tin and Eastern District have been providing services to the public since 2015. In 2017, the ones in Kwun Tong, Yuen Long and Sham Shui Po have commenced or will commence operation. Eight other CGSs projects are at different planning and construction stages and we will continue with site selection for the remaining five CGS projects.</li> </ul>
Regulation of Waste Cooking Oils (WCO)	<ul style="list-style-type: none"> <li>● Since the WCO Recycling Administrative Registration Scheme was launched in February 2016, over 160 WCO collectors, processors and recyclers have registered under the Scheme. We will continue to work closely with the Food and Environmental Hygiene Department to ensure that the WCO generated from local restaurants and other food premises is channeled to proper outlets for recycling.</li> </ul>
<b>Nature and Countryside Conservation</b>	
Biodiversity Strategy and Action Plan (BSAP)	<ul style="list-style-type: none"> <li>● We will continue to implement BSAP and organise the annual Hong Kong Biodiversity Festival. The event serves as a platform to invite non-governmental organisations and other stakeholders to collaborate in promoting biodiversity and fostering a sense of nature appreciation.</li> </ul>
Robin's Nest as a new country park	<ul style="list-style-type: none"> <li>● The Agriculture, Fisheries and Conservation Department is initiating the preparatory work for designating the Robin's Nest as the 25th country park in Hong Kong. The tasks include drawing up a long-term plan on the conservation and recreational development of the country park,</li> </ul>

Area	Progress
	public consultation and statutory designation procedures, etc.
Sha Lo Tung (SLT)	<ul style="list-style-type: none"> <li>● For the purpose of the long-term conservation of SLT, the Chief Executive in Council has given in-principle agreement in June 2017 to pursue a proposal for the contemporaneous surrender of private land with high ecological importance in SLT to the Government and granting of a piece of land at the Shuen Wan Restored Landfill in Tai Po to a company (i.e. non-in-situ land exchange).</li> <li>● We will continue to discuss with the company to work out the detailed arrangements. Upon conclusion of discussions with the company, we will seek formal approval from the Chief Executive in Council on the associated basic terms and conditions in relation to the proposed non-in-situ land exchange.</li> </ul>
South Lantau Conservation	<ul style="list-style-type: none"> <li>● The Government has earmarked \$30 million under the ECF for “Nature Conservation in South Lantau”, of which \$10 million has been allocated under the Environmental Education and Community Action Projects. We will invite applications in October 2017.</li> </ul>