

# ACE Paper 13/2024 For discussion on 4 November 2024

# **PURPOSE**

This paper sets out the policy measures of the Environment and Ecology Bureau (EEB) (Environment Branch) in relation to the environmental protection in the 2024 Policy Address.

#### **OVERALL DIRECTION**

2. The Resolution of the Third Plenary Session of the 20th Central Committee of the Communist Party of China announced "Building a Beautiful China. We will ramp up the green transition in all areas of economic and social development and improve the environmental governance system. We will prioritise ecological protection, conserve resources and use them efficiently, and pursue green and low-carbon development, with a view to promoting harmony between humanity and nature.". This is also the overall direction of the environmental protection policy measures of the EEB (Environment Branch).

#### BUILDING A BEAUTIFUL HONG KONG

#### Enhance the ecological and environmental governance system

The Government is committed to conserving the nature ecology and making continuous efforts to build a beautiful China and a beautiful Hong Kong. On further enhancing the ecological and environmental governance system, the Robin's Nest Country Park and the North Lantau Marine Park were and will be officially established in March and November this year respectively as the 25th country park and the 8th marine park in Hong Kong, thereby providing more opportunities for the public to participate in outdoor recreational and educational activities, in addition to enhancing nature conservation. We are also actively taking forward the establishment of the Sam Po Shue Wetland Conservation Park (WCP) in the Northern Metropolis (NM), which is more than five times the size of the existing Hong Kong Wetland Park. The Sam Po Shue WCP is a transformative new concept, integrating conservation, recreation/tourism and development of Apart from enhancing the habitat quality and agriculture and fisheries. biodiversity of the Deep Bay and increasing the environmental capacity of the NM,

it also seeks to provide quality outdoor eco-education and eco-recreation experience for the public, as well as promoting the modernisation of aquaculture on a large scale. We target to commence the construction of Sam Po Shue WCP in 2026/2027 the earliest and strive to complete the works of the first phase in 2031.

## Strengthen cooperation on nature conservation

4. On a regional perspective, we continue to deepen our collaboration with the Mainland on ecological conservation. The Agriculture, Fisheries and Conservation Department (AFCD) and the Planning and Natural Resources Bureau of Shenzhen Municipality signed the "Cooperative Framework Agreement for the Enhancement of Wutong Mountain (Shenzhen) – Robin's Nest (Hong Kong) Ecological Corridor" in August this year to strengthen the collaboration on jointly enhancing the cross-boundary ecological corridor and improving the biodiversity and ecological connectivity between the two places. The AFCD is also liaising with the management authority of Pearl River Estuary Chinese White Dolphin National Nature Reserve for the establishment of the "Guangdong-Hong Kong Chinese White Dolphin Marine Reserve Network Platform" in next year to strengthen the knowledge exchange and collaboration between the two places on management monitoring, ecological monitoring and research within the reserve areas as well as the science education and popularisation, thereby better conserving the Chinese White Dolphins in the waters of the two places.

# Add value to country parks

5. Hong Kong has beautiful natural scenery, and its countryside villages also reserve rich history and culture. With a view to creating additional recreation/ tourism value for country parks, we are actively and gradually enhancing country park facilities, such as setting up more campsites and upgrading camping facilities, improving and adding viewing platforms, constructing or reconstructing public toilets, and setting up tree top adventure and open up historical relics as museum, etc.. Among these, the viewing platform overlooking Po Pin Chau in Sai Kung East Country Park and the Lin Ma Hang Lead Mine Cave Revitalisation Project in Robin's Nest Country Park are expected to be completed and be opened by end-2024. Besides, we will promote new in-depth eco-tour experience by integrating culture characteristics of countryside villages, which include the organisation of island hopping tour(s) under the theme of "Sound-Sight-Taste Fusion" at Yan Chau Tong early next year to enhance public awareness of nature conservation and generate economic benefits, thereby facilitating urban-rural symbiosis.

# Update the Biodiversity Strategy and Action Plan

6. We are actively updating the Hong Kong Biodiversity Strategy and Action Plan to formulate a comprehensive strategy till 2035, with a view to further enhancing local nature ecology conservation work, and contributing to the biodiversity governance of our country and the world.

#### PROMOTING GREEN AND LOW-CARBON TRANSFORMATION

#### Assist in developing green and low-carbon industries

- 7. To achieve a win-win development for both the economy and the environment, we will support enterprises in implementing green technology projects in Hong Kong through policy measures, including the utilisation of restored landfills and short-term tenancy (STT) sites, etc., as well as relevant funding support for research, development and demonstration including the Green Tech Fund and the Innovation and Technology Fund, etc.. Amongst these initiatives, the EEB is assisting two local green technology companies in setting up production lines to upcycle local waste materials to produce high-value core materials for electricity-free cooling products and high value-added acoustic metamaterial products respectively, with a view to paving way for shaping Hong Kong's green industry.
- 8. We will continue to attract and facilitate companies development of green technology projects in Hong Kong, such as the hydrogen production facility using solar energy, with a view to establishing Hong Kong as a demonstration base for green technologies to facilitate the export of our country's green technologies and products by striving for international market recognition and strengthening competitive advantages, thereby performing the function of "going global and attracting foreign investment" for our country.

# Enhance land use arrangements for sites under STT for recycling purpose

9. At present, there are about 20 STT sites in Hong Kong designated for use by the recycling trade. To provide the recycling trade with more room of development for upcycling and strengthen support for green industries, we have introduced measures to remove barriers to enhance the relevant STT arrangement, hereby utilising precious land resources and maximising the land potential. Measures include relaxing the built-over area coverage ratio from 50%-80% at present to 100%; relaxing the building height restriction from 3 metres (m) - 8 m at present to 15m - 20m and 3 storeys; as well as extending lease term. We will also enhance the assessment details of land tender in the future, such as strengthening land use performance indicators and technical requirements, etc..

#### Cleaner Production Partnership Programme

10. The deepening of Guangdong-Hong Kong cooperation on green development facilitates the integration of Hong Kong into the national development and complements the country in promotion of high-quality development. The Third Plenary Session of the 20th Central Committee of the Communist Party of China announced to expedite the green transformation in all areas of economic and social development. Green technology is the basis of the new quality productive forces. Transforming and upgrading traditional industries with green technologies is one of the important tasks in deepening the reform in ecological conservation.

- 11. The Government of the Hong Kong Special Administrative Region (HKSAR) has launched four rounds of the Cleaner Production Partnership Programme (the Programme) since 2008 to encourage and facilitate Hong Kongowned factories in Hong Kong and Guangdong Province for the adoption of cleaner production technologies and practices so as to reduce emissions. More than 4 200 projects have been approved so far under the Programme. About 41 000 tonnes of air pollutants, 1.77 million tonnes of carbon dioxide, and 19 million tonnes of effluent discharge were reduced each year. The Programme is a successful example for the Guangdong-Hong Kong cooperation.
- 12. The Government will inject \$100 million to launch a new round of the Programme in supporting green transformation of Hong Kong-owned factories, thereby complementing the country in promotion of high-quality development. Transforming and upgrading the traditional industries with the adoption of green technologies will achieve energy saving, emission reduction, consumption and carbon emission reduction, thereby improving the regional environment and facilitating the achievement of the national and HKSAR's carbon neutrality targets.
- 13. The new round of the Programme (from 1 April 2025 to 30 June 2027) will at the same time strengthen the promotion of joint development of more advanced cleaner production technologies among the Hong Kong and Guangdong organisations, and encourage the adoption of relevant technologies by factory owners. This will support the green development of enterprises in Guangdong and Hong Kong, and also provide a demonstration platform for Hong Kong for relevant green technology research institutions and consulting services companies in acquiring business opportunities.

#### PROMOTING THE DEVELOPMENT OF NEW ENERGY

# Develop sustainable green maritime fuel supply chains

14. To develop Hong Kong into a high-quality green fuel bunkering centre, the Government has completed the feasibility study on providing bunkering of green methanol and other clean fuels for local and ocean-going vessels (OGVs), and will promulgate an action plan in 2024 for the provision of bunkering facilities and development of supply chains, and at the same time formulate the long-term plan for industry development in respect of fuel supply and demand, storage, and bunkering, etc.. The Government is also actively taking forward the preparatory work of providing liquefied natural gas (LNG) bunkering for OGVs, with a view to meeting the qualifying conditions for LNG bunkering in Hong Kong this year.

#### Promote green and low-carbon hydrogen energy

15. Hydrogen energy is a low-carbon energy with development potential. The Government has announced in June 2024 the Strategy of Hydrogen Development in Hong Kong which sets out the four major strategies of improving

legislations, establishing standards, aligning with the market, and advancing with prudence to create an environment conducive to the development of hydrogen energy in Hong Kong in a prudent and orderly manner, so that Hong Kong would be able to capitalise on the opportunities brought about by the recent developments of hydrogen energy in different parts of the world, our country in particular.

16. The Government has commenced the preparatory work for the amendment of the Gas Safety Ordinance to provide a legal basis for the regulation of the manufacture, storage, transport, supply and use of hydrogen used or intended to be used as fuel. We expect to submit the legislative amendment proposal to the Legislative Council (LegCo) in 2025. Also, to promote the long-term development of green or low-carbon hydrogen application in Hong Kong, we plan to formulate the approach of green or low-carbon hydrogen standard certification suitable to the development in Hong Kong by 2027. To this end, the Government has commenced relevant consultancy study to analyse the latest developments and certification models for low-carbon hydrogen standards in Mainland China and internationally, and to consult the key stakeholders.

#### PROMOTING GREEN TRANSFORMATION OF TRANSPORT

# Green Transformation Roadmap of Public Buses and Taxis

- 17. The Government has been committed to promoting green transport development, with a view to achieving the target of zero vehicular emissions by 2050. We have earmarked around \$750 million under the New Energy Transport Fund, and will announce a citywide green transformation roadmap for public buses and taxis by the end of this year, setting out future directions and policy targets for completing the green transformation in an orderly manner. The roadmap will include subsidy schemes for providing financial support to the franchised bus operators and taxi owners, with a view to realising the target of introducing about 700 electric buses and about 3 000 electric taxis by end-2027.
- 18. Hydrogen Fuel Cell (HFC) vehicle is another type of new energy vehicle which has development potential. By the end of 2024, the Government will roll out new plans, which is also supported by the above-mentioned \$750 million, to subsidise trials of HFC heavy vehicles so as to evaluate the operational performance of such HFC vehicle with its conventional fuel counterpart.

# Electric vehicle charging network

19. The number of electric vehicles (EVs) in Hong Kong has increased from about 14 000 in 2019 to over 100 000 by August 2024. The Government will continue to adopt a multi-pronged approach to expand the network of charging facilities, to ensure that there will be sufficient and convenient charging facilities to meet the needs of various types of EVs. In this regard, the Government is adopting the measure to provide gross floor area concessions to encourage the installation of

EV charging-enabling infrastructure (EVCEI) in parking spaces of newly built private buildings, and launched the EV-charging at Home Subsidy Scheme to assist existing private residential buildings and housing estates in installing EVCEI in their parking spaces. The target is to increase the number of public and private parking spaces with charging infrastructure in Hong Kong to about 200 000 by mid-2027.

- 20. Fast charging technology for EVs is developing rapidly, and is particularly suitable for use in supporting public charging. At present, there are about 1 500 quick and fast chargers in Hong Kong. To expedite the development of a territory-wide fast charging network to greatly enhance the convenience of using EVs, we propose to roll out a \$300 million new scheme to subsidise the private sector for installing fast charging facilities (with a rated power output of 100 kilowatts or above). It is expected that the new scheme can provide impetus to the industry to expedite the installation of a total of 3 000 fast chargers by 2030, thereby providing additional support for about 160 000 EVs.
- 21. Since charging stations do not involve the storage of dangerous goods, converting petrol filling stations (PFS) to charging stations will increase the flexibility of utilisation of the existing and nearby land. The land resources in Hong Kong are scarce. We will explore the use of existing PFS which are planned for conversion into fast charging stations under a "single site, multiple uses" (SSMU) development model to increase the usage and value of the land. We plan to invite expression of interest from the trade on the proposal within 2025 to better understand the market interest in this aspect. After collecting opinions, we will study together with other relevant departments with a view to deciding on a SSMU development model for charging stations.

# CULTIVATING A GREEN CULTURE IN WASTE REDUCTION AND RECYCLING

Expedite the expansion of community recycling network and reinforce publicity and education

22. The current-term Government is dedicated to promoting a green waste reduction and recycling culture. In addition to strengthening publicity and education, we have been vigorously expanding the GREEN@COMMUNITY recycling network and food waste collection network to promote public participation in waste reduction and recycling. Analysis in the statistics shows a significant drop in waste disposal in Hong Kong, reflecting the years of efforts starting to bear fruit. The average daily disposal of municipal solid waste (MSW) in 2023 was 10 884 tonnes, decreased by 2.2% as compared to 11 128 tonnes per day in 2022. Among them, waste plastics decreased by 10.5%; overall food waste decreased by 3.4%, of which household food waste even decreased by 12.6%; waste paper, and metals decreased by 3.2% and 9.5% respectively. The per capita disposal was 1.44 kg per day, dropped by 4.7% as compared to 1.51 kg in

- 2022. The overall recycling rate of MSW increased from 32% in 2022 to 33% in 2023, representing an increase of over 55 000 tonnes.
- 23. Seizing the opportunity of increasing public participation in waste reduction and recycling, the Environmental Protection Department (EPD) has been proactively expanding the community recycling network to promote wider public participation. The number of public collection points under the recycling network has substantially increased from about 250 in January 2024 to about 500 at present. The quantity of recyclables collected by GREEN@COMMUNITY in July 2024 increased by 70% as compared to that of December 2023. We will continue to vigorously exert efforts to promote waste reduction and recycling. **Initiatives** include expanding the community recycling network by increasing public collection points from about 500 at present to 800 in the first quarter of 2025, optimising service hours of the GREEN@COMMUNITY recycling facilities, and setting up self-service recycling stores or smart recycling facilities in public rental housing In addition, to enhance the cost-effectiveness of the overall (PRH) estates. operation of GREEN@COMMUNITY recycling network, we will review the tender arrangements and requirements for GREEN@COMMUNITY facilities. We are planning to set up self-service recycling stores in suitable public markets to test out the operational arrangement of self-service recycling. Furthermore, to enhance the recycling support in private residential premises, we have launched the Waste Reduction and Recycling Charter in June 2024 and have received around 850 We will continue to encourage private housing estates to participate applications. in the scheme and provide accessible means for the collection of recyclables for more residents.
- 24. To encourage greater public participation in resources separation and recycling, the EPD has been actively enhancing the GREEN\$ Electronic Participation Incentive Scheme. In February 2024, the EPD launched a pilot programme in collaboration with Carbon Wallet, a carbon reduction reward platform under the MTR Corporation. Users of the GREEN\$ mobile app can convert their GREEN\$ points to Carbon Wallet points for redemption of free MTR one-way tickets or local eco tours, etc.. The EPD is currently exploring with more collaboration partners for other reward arrangements and plans to introduce new options by end of this year or early next year, allowing the public to redeem electronic coupons or shopping vouchers using GREEN\$ points.
- Regarding food waste recycling, the number of food waste collection points has increased from 800 at end-2023 to around 1 350 in August 2024. Notably, we have completed the installation of 740 food waste smart recycling bins (FWSRBs) in all 213 PRH estates in Hong Kong by June 2024, six months ahead of the original target, covering about one-third of the population in Hong Kong. In addition, the number of FWSRBs in private housing estates has doubled, increasing from around 100 in end-2023 to around 220 in August 2024. With the EPD's active implementation of various food waste collection initiatives, the overall quantity of food waste recycled has significantly increased. The current average daily amount of food waste collected is about 310 tonnes, which accounts for an

increase of 50% as compared to that of December last year. In the coming year, we will further enhance various food waste collection measures, including doubling the number of residential food waste collection facilities to about 1 600 and progressively increasing the number of FWSRBs in PRH estates with higher usage, with a view to achieving "one bin per block" in PRH estates by 2026. Meanwhile, we will subsidise the installation of FWSRBs in private residential buildings through various schemes. When planning for food waste recycling facilities in future, the EPD will explore various innovative and more cost-effective technologies for food waste collection, including modifying existing food waste recycling bins and conducting trials of different types of on-site food waste treatment facilities.

- 26. Furthermore, we will also step up our promotion and education efforts on waste reduction and recycling in the community and schools. The EPD launched the "We-recycle@School" initiative in March this year to encourage students to actively practise resources separation and recycling together with their family members and cultivate waste reduction and recycling habits in their daily life. the coming year, we will organise at least 400 promotional activities on waste reduction and recycling for schools. Besides, the Green Outreach will strengthen the collaboration with non-profit organisations to implement the Green Outreach Volunteer Programme for reaching out to the community groups of women, foreign domestic helpers, ethnic minorities and new immigrants, etc. to strengthen education and encourage people of different backgrounds to practise waste separation at source and clean recycling. The current term Government's original aspiration to promote waste reduction and recycling has not changed. continue to assess public views on and participation in waste reduction, and report to the LegCo in mid next year.
- 27. The "plastic-free" campaign is another indicator of changes in society's green and waste reduction culture. The new regulation of disposable plastic tableware and other plastic products came into effect on 22 April, with the sixmonth adaptation period ended on 21 October. In recent months, the trade of chained restaurants has indicated that approximately 80% of their takeaway customers have chosen not to require takeaway cutlery. During inspection of restaurants, the EPD found that about 30% of them have decided not to provide any takeaway cutlery any more, even if customers are willing to pay for them. These changes have indicated that many people no longer rely on disposable plastic tableware for takeaways. As a result, these restaurants believed that their business would not be adversely affected by not providing takeaway cutlery, and some restaurants expressed their initiative in promoting reduction of disposable products. Several major catering groups are developing and testing more nonplastic and environmentally friendly tableware and other products to support green transformation of Hong Kong. It is observed that a new culture of "plastic-free, disposable-free, and green-recycling" is being developed gradually in the community in Hong Kong.

#### Waste to Energy

28. At present, there are about 11 100 tonnes of MSW in Hong Kong being handled at West New Territories Landfill (WENT) and North East New Territories Landfill<sup>1</sup> (NENT) on a daily basis. Both landfills are expected to be exhausted in 2026. I. PARK 1, the first waste-to-energy (WtE) facility for treating MSW, is expected to commence operation in 2025 for handling about 3 000 tonnes of MSW We are expediting various preparation work for the development of I-PARK 2, aiming at inviting tender by the end of this year and progressing towards the objective of "zero waste to landfill". While we are dedicated to developing I-PARK 1 and I-PARK 2, we are taking forward the respective construction works for the extension of WENT and NENT with a view to maintaining, in the short to medium term, sufficient daily capacity for handling MSW before sufficient WtE facilities are available in Hong Kong. The operation of the two landfill extensions will be commenced in 2026 progressively. To this end, we have planned to amend the Waste Disposal (Designated Waste Disposal Facility) Regulation (Cap. 354L) by adding I-PARK1, the extension of WENT and the extension of NENT to the relevant subsidiary legislation and amend the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N) by adding the extension of WENT and the extension of NENT to the relevant regulation in early 2025 so as to enable designated officers appointed by the Director of Environmental Protection be provided with the power specified under Cap. 354L and Cap. 354N for carrying out proper management and control of these three facilities. We aim to publish a notice on the amendments to the relevant regulations in January 2025 and submit it to the LegCo for vetting for scheduled commencement on 1 April 2025.

#### Waste to Resources

29. To expedite the implementation of producer responsibility schemes (PRSs) for turning more waste into resources, the Government is working on the legislative amendment exercise to establish a common legislative framework for PRSs, and the continued consultation with stakeholders and the industry in parallel. We estimate that the drafting of the legislation can be completed in the first quarter of 2025 and the Government will introduce the bill into the LegCo as soon as possible. Upon the passage of the bill, we will gradually formulate respective subsidiary legislation for various products, including plastic beverage containers, beverage cartons, EV batteries, vehicle tyres and lead-acid batteries. Thereon, the PRS for plastic beverage containers and beverage cartons will be the first PRS to be implemented.

#### WORK INDICATORS

30. Adhering to the "result-oriented" principle, we have established key indicators<sup>2</sup> to monitor the progress in implementing various policy initiatives, with

WENT and NENT also respectively handle about 300 tonnes and 1300 tonnes construction waste daily.

For details, please refer to <a href="https://www.policyaddress.gov.hk/2024/public/pdf/policy/policy-annex en.pdf">https://www.policyaddress.gov.hk/2024/public/pdf/policy/policy-annex en.pdf</a>.

a view to enabling members of the public to enjoy a real sense of effective governance.

# **CONCLUSION**

31. Members are invited to note the above key policy measures and provide comments. Other relevant environmental protection policy measures are at **Annex**.

**Environment and Ecology Bureau** October 2024

# **Annex**

# 2024 Policy Address Policy Measures of Environment and Ecology Bureau: Environmental Protection Summary of Other Policy Measures

Area	Policy Measures
1. Striving towards Carbon Neutrality	
(a) Waste Reduction and Recycling	
Regulating the proper handling of recyclables in residential buildings	<ul> <li>Continue to encourage property management companies and owners' organisations of private residential premises to sign the Waste Reduction and Recycling Charter (the Charter), provide accessible waste separation and recycling facilities to facilitate residents in practising source separation of waste and clean recycling, and properly pass the collected recyclables to recyclers for processing.</li> </ul>
	• Review the progress of the Charter, and consult stakeholders and the LegCo in mid-2025 on the way forward for the bill to regulate the proper collection and handling of recyclables in residential buildings, including the operation and the timetable of the proposed legislation.
(b) Others	
Technology innovation	<ul> <li>Continue to implement the \$400 million Green Tech Fund to support research and development projects on decarbonisation technologies with good application and commercialisation potential.</li> </ul>
Coping with extreme weather events	<ul> <li>Develop the flood risk assessment system to provide information on flood risk for relevant departments.</li> </ul>
2. Nature Conservation	
Strengthening protection of marine ecology	• Strengthen the protection of marine mammals in Hong Kong waters, including Chinese White Dolphins, through enhancing public education, reviewing legislation and regulations, and working more closely with the Mainland, etc.

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