Environmental Protection

The Secretary for Environment and Ecology, who has overall policy responsibility for environmental protection, receives assistance on the formulation of new policies as well as management of environmental issues from the Permanent Secretary for Environment and Ecology (Environment), and the Director of Environmental Protection. The Advisory Council on the Environment advises the Government on measures for the prevention and abatement of pollution.

The Environment and Conservation Fund (ECF) provides funding support to local non-profit making organisations for educational, community waste reduction and recovery, research, technology demonstration and other projects in relation to environmental and conservation matters. The Environmental Campaign Committee (ECC) set up in 1990 promotes public awareness of environmental matters and encourages the public to contribute actively towards a better environment. ThekNOw Carbon House under the management of ECC provides easy access of carbon neutrality related information and organise regular workshops for the public.

Planning Against Pollution: Considerable emphasis is placed on pre-empting environmental problems by requiring designated works projects to undergo statutory environmental impact assessment (EIA) process to ensure that environmental factors are considered at all stages of project planning and development.

At strategic level, key environmental information relating to major proposals has to be provided in submissions to the Executive Council to facilitate decision-making. For some major proposals or plans, strategic environmental assessment would also be conducted.

At local level, environmental quality is safeguarded through the application of the guidance provided in the Hong Kong Planning Standards and Guidelines.

The Environmental Impact Assessment Ordinance provides the legal framework for applying the EIA process to designated projects and implementation of agreed environmental measures through Environmental Permits.

To lead by example, all government bureaux and departments are required to publish annual environmental reports starting from 2000. Private and government owned public corporations are encouraged to do likewise.

The EPD has been actively promoting environmental audit, environmental management system and environmental reporting to improve corporate environmental performance in both private and public sectors. To assist organisations in pursuing environmental management, useful guidelines are available at the EPD's website at http://www.epd.gov.hk.

Legislation and Pollution Control: The EPD is responsible for the enforcement of most of the measures contained in the 11 pollution control legislation.

Air: The control on air pollution is effected under the Air Pollution Control Ordinance. Major emitters, such as power plants and cement plants, are categorised as Specified Processes and subject to stringent licensing control. Emission caps have been imposed on all power stations through licence conditions since 2005. Amendments to the Ordinance have enabled the stipulation of emission caps for the power sector by a Technical Memorandum (TM). A total of nine TMs were issued from 2008 to 2021 to progressively tighten the emission caps from 2010 to 2026 and onwards. For other processes, the installation and alteration of fuel burning equipment need prior approval from the EPD. To reduce air pollutants, limits are imposed on the sulphur content of fuels sold in Hong Kong. All commercial and industrial processes are required to use ultra low sulphur diesel under an amendment regulation that became effective in October 2008. Subsidiary regulations have been in place to control smoke from furnaces, open burning, construction dust, volatile vapour from petrol filling stations, dry-cleaning machines, products containing volatile organic compounds and emissions from non-road mobile machineries.

Specific control on asbestos work requires registration of asbestos consultants, laboratories, contractors and supervisors. The use, supply, import or transhipment of all types of asbestos has been totally banned from 4 April 2014. To promote good indoor air quality (IAQ), an IAQ Management Programme has been introduced, of which the implementation of the IAQ Certification Scheme for Offices and Public Places is one of the major tasks. Organisations participating in the certification scheme have adopted the more stringent IAQ Objectives, which were updated in 2019, as the certification standard. IAQ labels can be displayed at certified premises to demonstrate the attainment of good IAQ levels.

To tackle air pollution caused by vehicle emissions, the Government is implementing a number of programmes. These include introducing stringent vehicle fuel and emission standards that are practical and commercially viable, exploring clean alternatives to diesel vehicles and strengthening vehicle emissions inspection. From April 2008, buyers of newly registered environment-friendly commercial vehicles enjoy concessions for their first registration taxes. Moreover, the Motor Vehicle Idling (Fixed Penalty) Ordinance which introduced a statutory prohibition against idling vehicles with running engines came into operation in December 2011. Apart from the Smoky Vehicle Control Programme which controls smoky diesel vehicles on road, the Government started in September 2014 to strengthen control of emissions from petrol and LPG vehicles using roadside remote sensing equipment. On the other hand, the ex-gratia payment scheme launched in March 2014 and completed in June 2020 has phased out about 80 000 pre-Euro IV diesel commercial vehicles. In October 2020, the Government launched another incentive-cum-regulatory programme to progressively phase out some 40 000 Euro IV diesel commercial vehicles by end 2027. In addition, to ensure timely replacement of diesel commercial vehicles in the long run, the Government also limits the service life of diesel commercial vehicles first registered after 31 January 2014 to 15 years.

The Government has introduced various regulations to control marine emissions, which include controlling vessel smoke emissions by legislation, upgrading the quality of locally supplied marine light diesel, requiring vessels to use low sulphur fuel in Hong Kong waters, and mandating ocean going vessels to switch to cleaner fuel while berthing. Hong Kong is the first port in Asia to introduce the fuel switch requirement.

As a result of the implementation of various control measures, the air quality of Hong Kong has been improving. In 2022 and 2023, the annual average concentrations of major air pollutants in the ambient air have reduced significantly by about 40 to 70% from 2011.

To continuously improve the air quality and better protect of public health, the Government reviews the Air Quality Objectives (AQOs) every five years and has progressively tightened according to World Health Organization's Air Quality Guidelines where practicable. At present, The Government completed a new round of review in 2023, and will further tighten the AQOs with a view to taking effect in 2025. In addition, the Government announced the "Clean Air Plan for Hong Kong 2035" in June 2021, setting out long-term goals and strategies to further improve air quality, with a view to leading Hong Kong to become a liveable city with air quality on par with major international cities by 2035.

To fulfil the requirement under the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer and join the global effort to combat climate change, the Government has initiated the legislative amendment process to regulate and phase down hydrofluorocarbons regulated under the Kigali Amendment.

Waste: The Waste Disposal Ordinance (WDO) provides for the control and regulation of the production, storage, collection and disposal of waste. Moreover, in line with the Basel Convention, the ordinance enables a permit control on import and export of hazardous waste and other specified wastes. The WDO also bans the import of hazardous waste from developed countries to Hong Kong. Furthermore, the Government proposes amending the WDO to regulate the import and export of all electrical and electronic waste with the permit control from 1 January 2025 to align with the latest requirement of the Basel Convention.

Based on the principle of "polluter pays", charging schemes have been introduced under the respective Ordinances to charge for the treatment of chemical, clinical and MARPOL waste at the Chemical Waste Treatment Centre. In addition, private sector users of refuse transfer stations are required to pay for the service. Similarly, disposal of construction waste at the landfills, outlying islands transfer facilities or sorting facilities, and disposal of inert construction waste at public fill reception facilities, are also subject to charges.

The Dumping at Sea Ordinance controls marine dumping activities to comply with the requirements of the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (the London Convention).

Water: The Water Pollution Control Ordinance provides for declaration of 10 Water Control Zones and four supplementary Water Control Zones to cover the whole area of Hong Kong. Except discharge of domestic sewage to foul sewers and unpolluted water to storm drains, rivers and other water bodies, all other discharges into these zones have been subject to regulatory control. A Technical Memorandum of Effluent Standards provides transparency in setting control limits for any discharge licences to be issued to dischargers. They are designed to enable achievement of the Water Quality Objectives.

Noise: The Noise Control Ordinance provides for the control of noise from construction sites, domestic premises and public places, industrial and commercial premises, motor vehicles, intruder alarm systems as well as specified noisy equipment. Noise from general construction works in evening (1900 – 2300 hours), at night (2300 – 0700 hours) and on general holidays is controlled through a permit system which has essentially banned non-essential noisy construction works in built-up areas. All percussive piling works are prohibited in evening, at night and on public holidays, and require a permit at other times. Noisy diesel, steam and pneumatic piling hammers are essentially banned in built-up areas. Hand-held breakers and air compressors must comply with the stringent noise emission standards and be fitted with noise emission labels. The management of bodies corporate is to be held personally liable for repeated noise offences.

Noise from domestic premises and public places is controlled by the police on a reasonableness approach, whereas noise from industrial or commercial premises is controlled by the EPD through issuance of noise abatement notices. To minimise traffic noise, newly registered vehicles including motorcycles are required to comply with stringent noise emission standards.

Enforcement of the above pollution control ordinances is undertaken by the EPD through investigation of pollution complaints, inspection and licensing of pollution sources, issuing pollution abatement notices and prosecution of offenders. The Regional Offices have proved to be very effective in tackling local pollution concerns and strengthening communication with the local communities on the government's environmental protection work. In parallel, the EPD also develops partnership with the trade and industry to assist in law compliance and pollution prevention, promote corporate environmental management as well as raising environmental awareness of the general public.

Green Transport: In March 2011, the Government established the $1.1 billion New Energy Transport Fund (previously named Pilot Green Transport Fund) (the Fund) to encourage trial and wider use of green innovative transport technologies on a variety of commercial transport tools including goods vehicles, taxis, light buses, buses, vessels, motorcycles, non-road vehicles, or the aforesaid transport tools of charitable/non-profit making organisations providing services to their clients. To promote the concept of "Transport for All", the Government has earmarked $50 million under the Fund to subsidise the trade to purchase wheelchair-accessible electric taxis.

The Government announced the Hong Kong Roadmap on Popularisation of EVs (the Roadmap) in March 2021, setting out the long-term policy objectives and plans to promote adoption of EVs with a view to achieving the goal of zero vehicular emissions before 2050. Key measures under the Roadmap include no new registration of fuel-propelled private cars including hybrid vehicles in 2035 or earlier, expansion of the EV charging network and promote its marketization, etc. The Government is proactively promoting the progressive conversion of some Petrol Filling Stations (PFSs) into Quick Charging Stations, and encouraging the retrofitting of EV chargers at existing PFSs to cope with various EV charging needs.

To keep pace with the development trend of hydrogen as fuel, the Government is promoting trials to test out hydrogen fuel cell electric buses and heavy vehicles. The first HFC double-decker commenced passenger service in 2024, trials of the first public hydrogen filling station, a hydrogen fuelled light rail vehicle and HFC street-washing vehicles are expected to commence progressively.

To facilitate the development of Hong Kong into a green fuel bunkering centre and promote the use of green fuel in the maritime sector, the Government has commenced a feasibility study on providing green marine fuel bunkering for both local and ocean-going vessels, and will promulgate an action plan in 2024 for the construction of bunkering facilities and development of supply chains.

Sewage and Waste Collection, Treatment and Disposal: Based on a sewage disposal strategy, the Government has devised sewerage master plans (SMPs) to cover the whole territory of the HKSAR, and would review in light of population increase and district development when needed.

The Harbour Area Treatment Scheme (HATS), which comprises a major deep tunnel collector system and treatment works, has been implemented for handling

sewage generated from all districts around Victoria Harbour. HATS Stage 1 collects sewage from Kowloon and the north-eastern part of Hong Kong Island and transports it through a network of deep tunnels to the Stonecutters Island Sewage Treatment Works (SCISTW) for treatment. HATS Stage 2A collects sewage from the northern and south-western parts of Hong Kong Island to the expanded SCISTW for treatment. With full commissioning of Stage 2A in December 2015, all sewage from both sides of Victoria Harbour has been intercepted and diverted to the SCISTW for centralised treatment and disinfection before discharge, resulting in further improvement in the water quality of the harbour. Meanwhile, the Government is taking focused effort to tackle the discharge of residual pollutants to the harbour caused by sewer misconnections, leakages and street activities. Engineering measures of sewerage network rehabilitation is being progressively implemented with a view to further enhancing the quality of coastal waters of Victoria Harbour.

Above 93% of the populace is served by the public sewerage system, with its sewerage network of about 1 900 kilometres and around 330 sewage pumping stations and sewage treatment plants collecting and treating 2.8 million cubic metres sewage per day, over 99 per cent of which receives chemical or higher levels of treatment before being discharged. The EPD is the waste disposal authority responsible for planning and development of waste treatment and disposal facilities.

In 2022, the two large modern landfills in the New Territories received and disposed of a daily total of about 11130 tonnes of municipal solid waste (MSW) including domestic waste, and commercial and industrial waste, in which 8530 tonnes were containerised waste transported to the landfills in bulk from six refuse transfer stations in urban areas and seven refuse transfer facilities at outlying islands. Overall construction waste disposed of at all three landfills amounted to a further 4130 tonnes per day. With a view to moving away from the reliance on landfill for direct disposal of MSW, the EPD is pressing ahead with the development of a network of advanced and highly efficient modern waste-to-energy (WtE) facilities, including modern WtE incineration facilities and food waste treatment facilities so as to treat MSW in a sustainable manner and transform waste into useful energy resources.

As for other types of waste, the Chemical Waste Treatment Centre on Tsing Yi Island has treated more than 1.095 million tonnes of chemical waste since the plant commissioned in 1993. Moreover, it also incinerated more than 30697 tonnes of clinical waste since its first reception of the waste in August 2011. A storage facility for low level radioactive waste on Siu A Chau was commissioned in 2005. For livestock waste, the EPD is also experimenting with different new treatment technologies to reduce the amount of waste disposed of at landfills. For example, starting from 1 July 2024, all pig manure collected from local farms has been delivered to O·PARK2 for treatment. T·PARK, a sewage sludge incineration facility at Tsang Tsui, Tuen Mun has commenced its operation since April 2015 with daily throughput about 1 000 - 1 200 tonnes per day. The heat generated from the incineration process is converted to electricity for internal operation use while surplus electricity is exported to the public grid.

There are 13 closed landfills in Hong Kong. Their restoration works have been completed and the sites are safe for beneficial use by the public. A soccer-cum-baseball pitch at Sai Tso Wan Landfill was opened in 2004. A BMX Park and a Temporary Cricket Ground, built on Gin Drinkers Bay Landfill, were opened in 2009 and 2018 respectively. Two recreation parks developed on Jordan Valley Landfill and Ngau Chi Wan Landfill were opened to the public in 2010. Part of the Ma Yau Tong Central and Ma Yau Tong West Landfills were developed into two sitting-out-areas and opened to the public in 2011. At Tseung Kwan O Stage I Landfill (TKOL-I), the cycle track cum pedestrian footpath along the waterfront was opened to the public in 2012 while the Pet Garden and Football Training Centre were opened to the public in 2013 and 2018 respectively. In addition, a camp site cum green education ground (named E-Co Village) developed on TKOL-I by the Tung Wah Group of Hospitals was opened in July 2024. A butterfly conservation area was established at Siu Lang Shui Landfill in 2022 for enhancing and conserving the butterfly habitat. A recreational park is also being constructed at the GDBL for completion in 2024.

MSW Management: Hong Kong's daily per capita domestic waste generation rate is still high in comparison to other Asian cities with similar economic development, which puts tremendous pressure on the entire waste management strategy. The Government published the "Waste Blueprint for Hong Kong 2035" (the Blueprint) in February 2021 which outlines the strategies, goals and measures to tackle the challenge of waste management up to 2035, expecting to achieve "zero landfill" in 2035 by moving away from the over- reliance on landfills for direct disposal of MSW, and to complement the realisation of "carbon neutrality" by 2050 by developing adequate waste-to-energy/ resources facilities.

Enshrining the principle of "polluter pays" and the element of "eco-responsibility", Producer Responsibility Scheme (PRS) requires relevant stakeholders, including manufacturers, retailers and consumers, to share the responsibility for the collection, recycling, treatment and disposal of end-of-life products. The Product Eco-responsibility Ordinance was enacted in July 2008 to provide the legal basis for introducing PRSs in Hong Kong. Following the full implementation of the Plastic Shopping Bag Charging Scheme in the entire retail sector since April 2015, the EPD has implemented relevant enhancement measures since 31 December 2022, including increasing the minimum charging level and tightening the scope of exemption of the Scheme. The PRS on waste electrical and electronic equipment (WEEE) was fully implemented in 2018 and enhanced in July 2024, including expanding the coverage of waste electrical and electronic equipment to cover clothes dryers and dehumidifiers. The treatment and recycling facility (WEEE·PARK) developed to underpin the scheme also commenced full operation in March 2018. The PRS on glass beverage containers was implemented in May 2023. The EPD is preparing to establish a common legislative framework applicable to different products, with a view to gradually expanding the PRS for five products, namely plastic beverage containers, beverage cartons, electric vehicle batteries, vehicle types and lead-acid batteries. Moreover, in order to reduce the impact of plastic pollution on marine ecology and human health, the new legislation for the regulation of disposable plastic tableware and other plastic products has been implemented since 22 April 2024 (Earth Day), with a view to reducing the use of disposable plastic products at source.

In addition, the amendment bill to implement MSW charging was passed by the Legislative Council in August 2021. Between April and May 2024, the Government launched a "Demonstration Scheme" and the results showed that Hong Kong currently did not have the conditions to implement MSW charging. On 27 May 2024, the Government announced to suspend the implementation of MSW charging, and would first step up the promotion of waste reduction and recycling by expanding recycling facilities and strengthening public education. In parallel, the Government will study how to enhance the MSW Charging Scheme. It will keep track of the work progress and assess the public participation in waste reduction and recycling, with a view to reporting to the Panel on Environmental Affairs of the Legislative Council in mid-2025.

Food waste is a major constituent of MSW in Hong Kong, the EPD officially launched a Food Wise Hong Kong Campaign in May 2013 to raise public awareness and promote reduction in food waste. The "Food Wise Eateries" Scheme was also launched in November 2015 in encouraging eateries to offer food portioning options to their customers in order to reduce food waste. The "Big Waster" who symbolises food wastage in the Campaign has

disseminated information on food waste reduction to the general public through different channels including the social media platforms and strengthened interaction with supporters, in particular the youth. In support of the Government's target to attain carbon neutrality before 2050, the terms of reference and membership of the Food Wise Hong Kong Steering Committee have been updated in 2021 to encourage and facilitate the separation and collection of unavoidable food waste to enhance recycling of resources and help reduce the carbon footprint.

To expedite the expansion of the food waste collection network, the EPD extended the scale of the Pilot Scheme on Food Waste Collection in 2021 to progressively provide point-to-point collection services for public and private premises that generate larger amount of food waste. On domestic food waste recycling, the EPD has installed food waste smart recycling bins (FWSRBs) in all public rental housing estates across the territory, and rolled out funding schemes to subsidize the installation of FWSRBs in private housing estates. The EPD has also set up fixed or mobile food waste recycling points at government premises and locations near clusters of eateries or residential areas in old districts, offering more convenient recycling outlets.

For unavoidable and non-recyclable waste, the department proposes integrated waste management facilities with advanced incineration as the core treatment technology to substantially reduce the volume of such waste before final disposal and to recover energy from the waste. Construction of the first phase of the integrated waste management facilities (I·PARK1) at an artificial island site near Shek Kwu Chau was started in December 2017 with the target of commissioning in 2025. As for the proposed I•PARK2, the relevant investigation and design study as well as the related statutory procedures are underway in parallel. The total MSW incineration capacity of the two facilities will reach 9,000 tonnes per day. In parallel the Government will continue to utilise the O·PARKs and optimise the use of sewage treatment works for carrying out food waste/sewage sludge anaerobic co-digestion with a view to enhancing the overall food waste treatment capability in Hong Kong. O·PARK1, located at Siu Ho Wan, North Lantau, has been receiving food waste since July 2018 for recycling source separated food waste to useful compost and biogas products. O·PARK2 located at Sha Ling of the North District, has been receiving food waste since March 2024. In the meantime, the EPD in collaboration with DSD is carrying out the food waste/sewage sludge co-digestion trial scheme at Tai Po Sewage Treatment Works Sha Tin Sewage Treatment Works. The above food waste treatment facilities can receive and treat a total of 600 tonnes of food waste per day. As for yard waste, the EPD has developed a temporary yard waste recycling centre (Y·PARK) and commenced operation in June 2021, to turn suitable yard waste into useful materials such as mulch for planting and gardening, compost, biochar feedstock, and wood boards and wood beams for making wooden furniture, decoration, artworks and renovating facilities. Furthermore, a pilot plant in EcoPark to convert pre-treated yard waste into biochar has been commissioned in May 2023, which helps achieving the goal of zero waste landfilling and carbon neutrality.

The construction works of the South East New Territories Landfill Extension were completed with reception of construction waste commencing in November 2021. The contracts for extension of North East New Territories Landfill and West New Territories Landfill were awarded in January 2022 and August 2023 respectively. The capital works and detailed design concerned have already commenced progressively to ensure timely commissioning of the landfill extensions.

Apart from the Government's efforts in waste management, local recycling operations are playing an important role.

In 2022, 1.91 million tonnes of MSW recyclables were recovered.

To promote the sustainable development of the recycling industry, the Government launched the $1 billion Recycling Fund (the Fund) in October 2015. Another $1 billion was also injected into the Fund in April 2021 and the application period has been extended to 2027. Through various funding programmes, the Fund assists the recycling industry in enhancing its equipment and ratcheting up overall operational capabilities and productivity, and helps enterprises to enhance and expand their recycling business. The EPD and the Advisory Committee on Recycling Fund (RFAC) have been reviewing the operation of the Fund from time to time so as to timely introduce different optimizing measures and expand the scope of subsidy. Up to mid-2024, the Fund has approved about 2 600 applications involving a total funding of about $800 million.

Moreover, the EPD will continue to provide long-term land at affordable cost at the 20-hectares EcoPark in Tuen Mun for the recycling industry with a view to encouraging investment in more advanced technologies and value-added recycling processes in Hong Kong. There are diverse types of materials recycled in EcoPark, including waste cooking oil, waste metals, waste wood, WEEE, waste plastics, waste batteries, waste construction materials, waste glass, waste rubber tyres and waste paper etc. The Government has 20 short-term tenancy sites occupying 4.8 hectares of land leased out exclusively for use by the recycling industry.

The EPD continues to support waste reduction and recycling work at community level through progressive expansion and upgrading of its Community Recycling Network, comprising Recycling Stations which promotes green living and provides recycling support, Recycling Stores and Recycling Spots which are conveniently located near residential areas. As at mid-2022, over 160 community collection points have been in operation. The EPD has also set up a Green Outreach to provide on-site waste reduction and recycling support in the entire territory. The Green Outreach collaborates with community partners to educate the public proper separation of waste at source and clean recycling, and assists property management companies and residents' organisations to identify proper recycling outlets.

Besides, the EPD has been running a Reduce and Recycle 2.0 Campaign since mid-2020 to promote wider adoption of clean recycling practice in more types of recyclables. To promote waste reduction and recycling, the Government has been taking the lead in adopting a green procurement policy, such as avoiding single-use disposable items and purchasing products with improved recyclability, higher recycled contents, less packaging and greater durability as far as practicable.

Environmental Monitoring and Investigations: The EPD has introduced environmental monitoring schemes and specific investigations to establish an objective basis for local action.

Water quality monitoring includes 82 routinely-sampled stations for inland waters, 94 for marine waters and 60 for bottom sediments. The EPD monitors the water quality of 42 gazetted beaches closely during the bathing season and reports on the latest beach water quality weekly.

Hong Kong has a long coastline of about 1 178 km in length. To upkeep its cleanliness for public enjoyment, the Government has set up an inter-departmental working group to oversee the clean up operations by relevant departments and engage the public in clean up activities as part of its environmental education programme.

Air pollutant levels are measured continuously at 15 general and three roadside monitoring stations. The EPD launched a health risk-based Air Quality Health Index (AQHI) on 30 December 2013. The index informs the public

of the short-term health risk of air pollution and helps them take precautionary measures to protect their health. The AQHI is released every hour via the internet, mobile app and telephone hotline.

Surveys of waste generation throughout Hong Kong have been conducted since 1981 to collect information needed for planning future waste disposal facilities.

Most major development projects are subject to environmental monitoring and audit. The EPD oversees programmes to ensure that recommendations in the EIA are strictly implemented and appropriate mitigation actions are promptly taken.

Regional and International Co-operation: To tackle regional environmental issues, Hong Kong has been co-operating with its Mainland and Macao partners through the Hong Kong- Guangdong Joint Working Group on Environmental Protection and Combating Climate Change, the Hong Kong-Guangdong Joint Working Group on Cleaner Production and the Hong Kong-Macao Environmental Protection Liaison Meeting.

The governments of Guangdong and Hong Kong signed an Environmental Co-operation Agreement in August 2009, including key co-operation areas in regional air and water quality, nature conservation, and green business development, etc. The two governments also signed a 2016-2020 Co- operation Agreement on Environmental Protection in September 2016 to further strengthen regional collaboration on environmental protection.

Since November 2005, a Pearl River Delta (PRD) Regional Air Quality Monitoring Network set up by the governments of Guangdong and Hong Kong has been reporting daily air quality information to the public. With growing concerns about air pollution control and economic development of the region, Hong Kong, Guangdong and Macao signed a “Co-operation Agreement on Regional Air Pollution Control and Prevention among Hong Kong, Guangdong and Macao” in September 2014 to foster regional co-operation and enhance the regional air quality monitoring network by additional monitoring stations and monitoring parameters to enrich the air quality monitoring information. The enhanced network has been releasing real-time hourly air pollutant concentrations since then. The monitoring results of the network from 2006 to 2023 showed a substantial reduction in the major air pollutant concentrations in the region. To continuously improve regional air quality and provide a robust scientific basis for mapping out further air quality improvement strategies in the PRD Region, the governments of Guangdong and Hong Kong have jointly completed the study “Post-2020 Regional Air Pollutant Emission Reduction Targets and Concentration Levels” to formulate emission reduction targets for 2025 and 2030.

Hong Kong, Guangdong and Macao also completed a study “Characterisation of photochemical ozone formation, regional and super-regional transportation in the Greater Bay Area” in 2021-2024. Through a series of air quality measurements at sea, land and air, the formation and transportation characteristics of ozone in the Greater Bay Area could be explored.

The HKSAR Government in collaboration with the Guangdong authorities launched a Cleaner Production Partnership Programme in April 2008, which provides technical support to Hong Kong-owned factories in Guangdong and Hong Kong to facilitate adoption of cleaner production technologies and practices. As at June 2024, more than 4100 funding applications were approved and about 680 awareness and technology promotion activities were organised with about 67 000 participants. To enhance the efforts in promoting cleaner production, the two governments jointly launched the Hong Kong – Guangdong Cleaner Production Partners Recognition Scheme in August 2009 to give recognition to the efforts of Hong Kong-owned factories and commercial enterprises in pursuing cleaner production. The two governments also signed the Hong Kong-Guangdong Co-operation Agreement on Cleaner Production in November 2014. As at June 2024, there were 343 enterprises holding valid commendations.

Hong Kong and its neighbour Shenzhen, meanwhile, are jointly implementing action programmes to protect the water quality of the adjoining water bodies, including Deep Bay and Mirs Bay. The EPD and the Shenzhen government also entered into agreements to strengthen co-operation on environmental protection and promotion of cleaner production in December 2007 and November 2008 respectively.

Exchanges and collaboration in various areas of environmental protection with Macao have been enhanced under the steer of the annual Hong Kong-Macao Environmental Protection Liaison Meeting since 2008. In October 2016, the EPD and the Macao Environmental Protection Bureau signed the Hong Kong-Macao Environmental Protection Co-operation Agreement to further strengthen exchange and co-operation in various areas.

The Stockholm Convention on Persistent Organic Pollutants (POPs) became effective to the HKSAR in November 2004. The HKSAR Implementation Plan (HKSARIP) was included in China’s National Implementation Plan. The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade became effective to the HKSAR in August 2008. The Hazardous Chemicals Control Ordinance (the Ordinance) came into operation in April 2008 to regulate non- pesticide hazardous chemicals regulated under the Stockholm Convention and the Rotterdam Convention. Five and one new non-pesticide POPs have been added to the Ordinance for regulation starting from January 2015 and June 2017 respectively, in accordance with amendments to the Stockholm Convention.

Two new non-pesticide hazardous chemicals have also been added to the Ordinance for regulation starting from July 2018, in accordance with amendments to the Rotterdam Convention. Starting from October 2023, four new non-pesticide hazardous chemicals have been included in the Ordinance for regulation in accordance with the amendments to the Stockholm Convention and Rotterdam Convention. In addition, one non-pesticide hazardous chemical that has been regulated under the Ordinance would be subject to more stringent control. The updated HKSARIP will be submitted to the Central People’s Government in 2025 for further submission to the Secretariat of the Stockholm Convention to include the latest progress and strategy in implementing the Convention.

The Minamata Convention on Mercury became effective to the HKSAR in August 2017. To ensure HKSAR's full compliance with the international obligations under the Convention, and protect public health and the environment from anthropogenic emissions and releases of mercury and mercury compounds, the Mercury Control Ordinance (Cap. 640) was passed by the Legislative Council in May 2021 and became effective since December 2021. Cap. 640 has four main provisions, namely the introduction of a permit system to control the import and export of all forms of mercury, the phasing out of mercury-added products listed in the Convention, the phasing out of the use of mercury and mercury compounds in the manufacturing processes listed in the Convention, and the introduction of a permit system to control the storage of all forms of mercury and mercury compounds.

To address the climate change challenge, the HKSAR, as part of the People’s Republic of China, has been working closely with the international community under the United Nations Framework Convention on Climate Change and Paris Agreement. The HKSAR has

also joined the C40 Cities Climate Leadership Group (C40) to enhance co-operation with participating cities to combat climate change. Co-operation with Guangdong on combating climate change and the related scientific research and technology development are overseen by the Special Panel on Combating Climate Change established under the Hong Kong-Guangdong Joint Working Group on Environmental Protection and Combating Climate Change.

Hong Kong would strive to achieve carbon neutrality before 2050 and reduce total carbon emissions from the 2005 level by half before 2035 respectively. To this end, the Government released in October 2021 the "Hong Kong's Climate Action Plan 2050", setting out the vision of "Zero-carbon emissions · Liveable city · Sustainable Development", and outlining the four decarbonisation strategies, namely "net- zero electricity generation", "energy saving and green buildings", "green transport" and "waste reduction" that would lead Hong Kong towards the goal of carbon neutrality The Government set up a new Steering Committee on Climate Change and Carbon Neutrality under the chairmanship of the Chief Executive in 2021 to oversee climate strategies and actions at the highest level and established in 2023 the Office of Climate Change and Carbon Neutrality to strengthen co- ordination and promote deep decarbonisation

As mentioned in the Hong Kong's Climate Action Plan 2050 published in 2021, in the next 15 to 20 years, the Government will devote about $240 billion to take forward various measures on climate change mitigation and adaptation, covering renewable energy, energy saving and green buildings, green transport, waste management and enhancement of flood control capability, etc. The Government set up the Green Tech Fund (GTF) in 2020 to provide better and more focused funding support to research and development projects which can help Hong Kong decarbonise and enhance environmental protection. $400 million has been allocated to the GTF to subsidise projects in priority areas such as net-zero electricity generation, energy saving and green buildings, green transport and waste reduction. Hong Kong is moving along the "low carbon" pathway to become an economy based on low energy consumption and low pollution. A host of actions are being pursued to enhance energy efficiency, use clean fuels, and rely less on fossil fuels. Hydrogen energy has been regarded as a low-carbon energy with development potential. To accelerate the green energy transition and prepare for the opportunities presented by the development of hydrogen energy, the Government published in June 2024 the Strategy of Hydrogen Development in Hong Kong. The Strategy 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 environmental and economic opportunities brought about by the recent developments of hydrogen energy in different parts of the world, the country in particular. It can also help Hong Kong broaden co-operation with the Guangdong-Hong Kong-Macao Greater Bay Area and even the world, integrate into the country's overall development, and develop a new quality productive force.

By implementing various environmental protection measures and promoting decarbonisation initiatives, Hong Kong is aspiring to be one of the greenest cities in China.