

# LCQ11: Cybersecurity of government departments and other public organisations

Following is a question by the Hon Edward Leung and a written reply by the Secretary for Innovation, Technology and Industry, Professor Sun Dong, in the Legislative Council today (November 22):

Question:

It is learnt that as the Government is promoting the development of Hong Kong into a smart city and as more public organisations are implementing electronic services, the public has expressed increasing concerns on the cybersecurity measures they adopt. In this connection, will the Government inform this Council:

(1) in relation to the recent cyberattacks on the Cyberport and the Consumer Council, whether the Government knows the major root causes leading to the data breaches and why such root causes were not found in previous security assessments;

(2) of the number of systems (such as websites, apps and hosts) of government departments and other public organisations which were attacked by ransomware last year, and the number of such attacks not disclosed to the public;

(3) of the number of systems mentioned in (2) which were covered by continuous security assessment and improvement programs (such as vulnerability disclosure program and bug bounty program); and

(4) whether it has estimated the talent gap of cybersecurity talents required to be filled to address the needs of government departments and other public organisations for continuous security assessments and improvements?

Reply:

President,

The Government is very concerned about the recent incidents of unauthorised access into computer systems of individual public organisations by hackers. These incidents suggest that cybersecurity threats are increasingly commonplace. All sectors of society must take effective measures to safeguard their systems and enhance security of the networks and data.

Having consulted the Commerce and Economic Development Bureau and the Security Bureau, my reply to the questions raised by the Hon Edward Leung is as follows:

(1) The cybersecurity incident at Cyberport in August 2023 was caused by ransomware. As soon as its computer systems were suspected of being intruded

by hackers, Cyberport had implemented multiple measures immediately, including strengthening cybersecurity and system's defence, engaging independent cybersecurity experts for investigation and review, and reporting the case to the Police and the Office of the Privacy Commissioner for Personal Data (PCPD). Cyberport had also made public announcements on the incident and the latest development, and notified the known potentially affected persons to offer them assistance as far as possible. In this connection, the Board of Directors of Cyberport had established a Task Force to monitor the relevant follow-up actions.

Meanwhile, the computer system of the Consumer Council (the Council) was similarly attacked by hackers with ransomware in end-September 2023. Upon discovering the intrusion, the Council had immediately taken multiple follow-up actions, including strengthening security measures of the system, reporting to the Police and PCPD, and appointing a forensic expert to conduct investigations. The Council had also held a press briefing to inform the public of the incident and contacted the potentially affected persons to urge them to stay vigilant and suggest measures to be taken, including avoiding opening or clicking on suspicious links, emails or messages.

(2) and (3) With regards to the security of information systems and cyberspace, the Government has devised and implemented on an ongoing basis a multi-layered system covering assessment, monitoring, risk management and contingency. To ensure the safety of government information systems, all government departments must adopt a risk-based approach to continuously identify security risks of their information systems by regularly conducting independent information security risk assessments and reviewing and enhancing current security measures to keep relevant measures abreast of the times and ensure their effectiveness in tackling the latest cyber risks. On the other hand, in view of evolving pattern of cyber attacks, the Office of the Government Chief Information Officer (OGCIO) has been closely monitoring the trends of cyberattacks and the associated security threats, and issued timely security alerts and reminders to government departments to assist and remind them of their obligation to make prompt responses and strengthen their precautionary measures.

Besides, the Critical Infrastructure Security Coordination Centre (CISCC) of the Police is committed to strengthening the protection and resilience of critical infrastructure through public-private partnership, risk management and on-site security inspections, etc. By instilling the concept of Security-by-Design and providing professional security recommendations, the CISCC seeks to enhance critical infrastructure's capacity in defence, response and recovery. Meanwhile, the Cyber Security Centre under the Cyber Security and Technology Crime Bureau (CSTCB) of the Police provides round-the-clock cyber security protection and conduct timely cyber threat audits and analyses for critical infrastructure in the sectors of government, banking and finance, transportation, communications and public utilities, so as to prevent and detect cyberattacks against critical infrastructure.

The Government's information security incident response mechanism requires all government departments to report information security incidents

to the OGCI0 when such security incident occurs. Last year, the OGCI0 received in total five information security incident reports on ransomware infection of government information systems, which did not involve information leakage. Figures of the afore-mentioned information security incidents have been published in the Data.Gov.HK portal. The Government does not maintain statistics of cyberattacks on public organisations.

(4) Cybersecurity concerns various segments of information technology (IT), and hence the Government did not make any estimation on the demand and supply of the cybersecurity-related manpower. To promote the comprehensive development of IT security industry and grooming of talents, as well as to strengthen capability of relevant practitioners on cybersecurity protection, the Government has been promoting the following measures:

(i) The OGCI0 and the IT industry regularly organise activities including thematic seminars, technology workshop, certificate courses on information security, cybersecurity incident response training and the Information Security Summit to enhance IT practitioners' skills and knowledge of information security;

(ii) The OGCI0 collaborates with the industry on holding different promotion activities such as school visits, InfoSec Tours, Cyber Youth Programme, Hong Kong Cyber Security New Generation Capture The Flag Challenge, etc. to enhance the knowledge and interest in cybersecurity amongst young people and students, thereby encouraging and grooming more talents for the information security industry;

(iii) The OGCI0 supports tertiary institutions to provide more information security programmes, works with professional information security associations to promote professional accreditation for IT practitioners and holds activities including seminars and workshops, which aim to equip more IT practitioners with information security knowledge and skills;

(iv) The Government seeks to attract technology talents from all over the world through the Technology Talent Admission Scheme to work in the research and development fields including information security industry in Hong Kong, so as to enrich Hong Kong's pool of talents on information security; and

(v) The CSTCB has established the Cyber Range, which provides a safe and controlled virtual environment for training police officers and other cyber security practitioners under simulated cyberattack and defence scenarios, thereby helping to develop professional competence of stakeholders in order to strengthen the safeguard of cybersecurity in Hong Kong.

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## **LCQ14: Water quality of river channels**

## and nullahs

Following is a question by the Hon Stanley Li and a written reply by the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (November 22):

Question:

It has been reported that the water quality of river channels and nullahs varies, and, in particular, abnormalities in water quality have been detected at Shing Mun River in Sha Tin. In this connection, will the Government inform this Council:

(1) of (i) the number of complaints received about the hygiene conditions of Shing Mun River, as well as the follow-up actions taken, and (ii) the numbers of inspections and cleaning operations carried out at Shing Mun River, as well as the manpower and expenditure involved, in each of the past three years;

(2) whether it has regularly reviewed the effectiveness of the measures adopted to monitor the water quality of river channels and nullahs; if so, of the details; if not, the reasons for that;

(3) whether it has any long-term strategy to improve the water quality of river channels and nullahs; if so, of the details and timetable; if not, the reasons for that;

(4) whether it has studied the introduction of more innovative technologies to monitor the water quality, hygiene conditions and drainage capacity of river channels and nullahs; if so, of the details; if not, the reasons for that; and

(5) whether new education and publicity activities are in place to promote the public's attention and efforts towards maintaining the environmental hygiene of river channels and nullahs?

Reply:

President,

The reply to the question raised by the Hon Stanley Li is set out below.

(1) The numbers of complaints received by the Food and Environmental Hygiene Department (FEHD), the Environmental Protection Department (EPD) and the Drainage Services Department (DSD) about the environmental hygiene of Shing Mun River in each of the past three years are tabulated below:

Year/Department	FEHD	EPD	DSD
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2021	9	90	10
2022	10	58	6
2023 (Up to October)	12	30	9

The FEHD is responsible for removing floating refuse in nullahs, river channels, watercourses and natural rivers. At present, a cleaning service contractor engaged by the FEHD is tasked with removing the floating refuse from Shing Mun River. The contractor would deploy one supervisor and three workers for inspection and refuse removal. They would drive a boat to carry out regular inspection and refuse removal work along the course of Shing Mun River. During the rainy season from May to September each year when there is usually more floating refuse in the river, the contractor would provide daily inspection and refuse removal services. The inspection and refuse removal services are provided every other day from October to April of the following year. The FEHD would also deploy staff to carry out irregular inspections to ensure proper performance of the contractor and follow up on complaints by instructing the contractor to remove floating refuse from the river promptly. The contractor would take actions in response to the complaints and remove refuse from the river according to the FEHD's instructions.

The EPD, which has all along been attaching great importance to the environment and water quality of Shing Mun River, has regularly inspected and monitored the water quality of the river, followed up on all complaints against wastewater discharge and river water quality and deployed staff to trace suspicious sources of wastewater discharge. If any acts in breach of law are identified, the EPD will take appropriate enforcement actions to combat illegal sewage discharge.

Regarding manpower arrangement and expenditures, as the clean-up of Shing Mun River as well as the handling of complaints on environmental pollution of the river with follow-up inspections are parts of the routine work performed by the relevant departments, there is no separate breakdown of such expenditures.

(2) and (3) Most of the river channels in the urban areas of Hong Kong are artificially constructed or substantially modified drainage channels, or the so-called "nullahs". The EPD conducts routine water quality monitoring on a monthly basis at some 30 major rivers (including those nullahs mainly for flood drainage) across the territory, with sample analyses covering over 50 physical, chemical and biological parameters. Besides, pursuant to the Water Pollution Control Ordinance (Cap. 358), the compliance rate of the Water Quality Objectives (WQOs) is calculated by using five representative WQO parameters (including pH, suspended solids, dissolved oxygen (DO), five-day biochemical oxygen demand (BOD5) and chemical oxygen demand) to assess the overall condition of river water quality. In parallel, the EPD bases on the three key parameters of DO, BOD5 and level of ammonia-nitrogen to calculate the Water Quality Index (WQI), which rates river water quality in five categories, namely "Excellent", "Good", "Fair", "Bad" and "Very Bad", for

assessing the overall health condition of river water quality.

Shing Mun River was heavily polluted decades ago, resulting in odour issues. The Government has adopted a series of measures to improve the water quality, including provision of sewerage facilities for villages and installation of dry weather flow interceptors, implementation of the Livestock Waste Control Scheme, rectification of sewer misconnections, as well as conduct of bioremediation works for river sediments. The main channel of Shing Mun River first achieved "Excellent" WQI grading in 2005 and has maintained this grading since 2008 up to present. In 2022, the overall WQO compliance rate of Shing Mun River was 94 per cent, and its main channel has met the water quality requirements for secondary contact water recreational uses (such as rowing).

As for the overall improvement strategy, apart from ongoing monitoring, inspections and law enforcement, the Government has been proactively planning and developing sewerage infrastructure over the years to continuously improve public environmental hygiene and water quality of rivers and harbour. The Government's four key strategies include upgrading sewage treatment facilities and extending public sewerage systems to cater for population growth and development needs, providing village sewerage systems to improve the rural environment, installing dry weather flow interceptors to improve the nearshore water quality of Victoria Harbour, and progressively rehabilitating ageing sewers.

In 2022, the river water quality of Hong Kong maintained in a good and stable condition, achieving an overall WQO compliance rate of 88 per cent. In terms of the WQI grading, 84 per cent of the rivers in Hong Kong were graded as "Excellent" or "Good" in 2022, as compared with only 26 per cent in 1987. This shows a significant improvement in the river water quality of Hong Kong over the past 30 years as well as a substantial reduction of pollution loads in river channels. The Government will carry on with the above measures for continuous improvement in the water quality of river channels and nullahs in Hong Kong.

(4) As regards the application of innovative technologies in water quality monitoring, the EPD is exploring the use of locally-developed battery-powered mobile cameras at the downstream of some strategic storm water manholes to monitor storm water drainage systems. This can facilitate our further and long-term tracing and identification of sewer misconnections in upstream areas. The EPD will keep in view technological development and introduce the use of relevant technologies where appropriate, so as to protect the environment more effectively.

The DSD also continues to enhance its application of innovative technologies in flood control monitoring. It has installed about 300 remote flood control devices such as rain gauges and water level sensors at different locations across the territory to collect 24-hour real-time data on rainfall yield, water levels and tidal levels, etc, for instant transmission to the hydrological information system. Staff can use smartphones or computers to monitor the conditions of the main river channels and

watercourses in real time, thereby facilitating the DSD to promptly implement preventive and contingency measures.

(5) The EPD has rolled out a number of education and publicity campaigns to encourage members of the public to protect river channel environment, which include notifying construction sites to step up on-site rainwater management before the rainy season every year so as to prevent the pollution of river channels by rainstorm-induced overflow of wastewater. Besides, to avoid environmental pollution of river channels and hygiene and nuisance problems caused by the improper use of septic tank systems, the EPD has also devoted relevant publicity efforts, including setting up a webpage on "Tips on Proper Operation of a Septic Tank System" and distributing publicity materials to the residents of villages that have not yet been connected to public sewage systems to remind them of the importance of the proper use, repair and maintenance of septic tanks.

The DSD has all along been promoting its work on the protection of river channels through TV Announcements in the Public Interest, publications, leaflets and other activities such as opening its flood prevention facilities for public visits, organising river greening fun day and implementing outreach educational programmes, etc.

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## **LCQ9: Cross-boundary Wealth Management Connect Scheme in Guangdong-Hong Kong-Macao Greater Bay Area**

Following is a question by the Hon Yim Kong and a written reply by the Secretary for Financial Services and the Treasury, Mr Christopher Hui, in the Legislative Council today (November 22):

Question:

The Cross-boundary Wealth Management Connect Scheme (Cross-boundary WMC) in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) was officially launched in September 2021 to provide GBA residents with a formal, direct and convenient channel for cross-boundary investment in diversified wealth management products. Under Cross-boundary WMC, there is an aggregate quota of Renminbi (RMB)150 billion in each direction for the Southbound Scheme and Northbound Scheme. However, there are views that the development of related business has fallen short of expectations due to the restrictions on the eligibility of wealth management products, investors and service providers. As at the end of August this year, the amount of cross-boundary fund remittances (including Hong Kong and Macao) under Cross-boundary WMC was RMB6.31 billion, the quota usage of which was far from the aggregate quota

under the Southbound and Northbound Schemes (i.e. RMB300 billion). In this connection, will the Government inform this Council:

(1) whether it has assessed the effectiveness of Cross-boundary WMC, the problems encountered and the challenges faced since its launch; if so, of the details and main conclusions;

(2) as the financial regulatory authorities of the Mainland, Hong Kong and Macao announced on September 28 this year that Cross-boundary WMC will be further enhanced (including expanding the scopes of participating institutions and eligible investment products, as well as refining the eligibility criteria of investors), of the relevant details and timetable; and

(3) whether it will consider exploring with the Mainland authorities the extension of Cross-boundary WMC to other Mainland cities once its operation has matured?

Reply:

President,

Cross-boundary Wealth Management Connect (Cross-boundary WMC) in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) was formally launched in September 2021, enabling residents in Hong Kong, Macao and nine cities in Guangdong Province to carry out cross-boundary investment in wealth management products distributed by banks in the GBA. Cross-boundary WMC provides GBA residents with a formal, direct and convenient channel for cross-boundary investment in diverse wealth management products. It is a milestone in the financial development of the GBA and an important measure that deepens and widens mutual access between the financial markets of the Mainland and Hong Kong.

My reply to the question raised by Hon Yim is as follows:

(1) Cross-boundary WMC creates new business opportunities for the local wealth management industry and benefits the entire financial industry value chain in Hong Kong. It incentivises international financial institutions to allocate resources to Hong Kong for product development, product distribution, asset management and other businesses to provide services for investors in the Mainland cities in the GBA. It also promotes the cross-boundary flow and use of Renminbi (RMB) and further consolidates Hong Kong's position as a global offshore RMB business hub.

Cross-boundary WMC has seen steady development since its launch. Currently, 24 eligible Hong Kong banks have commenced Cross-boundary WMC services with their respective Mainland partner banks. According to the statistics as of end-September 2023 published by the People's Bank of China, over 60 000 individual investors in the GBA (including Hong Kong and Macao) participated in Cross-boundary WMC, recording a total of more than 32 000 cross-boundary fund remittances (covering Hong Kong and Macao) amounting to



over RMB7.37 billion. Mainland investment products held by Hong Kong and Macao investors under Cross-boundary WMC stood at around RMB224 million, including wealth management products at around RMB150 million and funds at around RMB74 million. Investment products of Hong Kong and Macao held by Mainland investors under Cross-boundary WMC stood at around RMB1.88 billion, including funds at around RMB26 million, bonds at around RMB7 million and deposits at around RMB1.847 billion. As of end-October 2023, the aggregate quota usage under the Southbound Scheme and Northbound Scheme (covering Hong Kong and Macao) was over RMB2.33 billion and RMB250 million respectively (calculated on a net cross-boundary remittance basis).

Cross-boundary WMC was launched during the pandemic when the travel restrictions had considerably affected the readiness and convenience of cross-boundary investments. Besides, since it was the first time for many investors to participate in cross-boundary investments, it took time for them to understand the new investment channel, relevant products and the macro environment. In view of this, the Hong Kong Monetary Authority and the Securities and Futures Commission in co-ordination with the industry have enhanced investor education efforts, so as to foster investors' confidence and user experience in making investment through Cross-boundary WMC.

(2) & (3) The financial regulatory authorities of the Mainland, Hong Kong and Macao jointly announced in late-September this year that they would enhance Cross-boundary WMC along five directions, including refining the eligibility criteria of investors to support more GBA residents to participate in the scheme, extending the scope of participating institutions to include eligible securities firms, expanding the scope of eligible investment products, increasing the individual investor quota as appropriate, and further enhancing the promotion and sales arrangements. The regulatory authorities are refining the implementation arrangements and operational guidance with a view to launching the measures as soon as practicable.

As an innovative financial co-operation measure in the GBA involving three different regulatory systems, Cross-boundary WMC has been implemented in the nine Mainland cities under a pilot approach in a gradual and incremental manner. On the basis of their respective existing regulatory regimes and practices, the relevant regulators in the three places are maintaining close collaboration and seeking flexibility for policy formulation and implementation. We in co-ordination with the relevant regulators will, taking account of market development and the operation of Cross-boundary WMC, examine whether the pilot scope should be expanded as appropriate.

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## **LCQ19: Community recycling facilities**

Following is a question by the Hon Chan Kin-por and a written reply by

the Secretary for Environment and Ecology, Mr Tse Chin-wan, in the Legislative Council today (November 22):

Question:

In order to encourage the public in actively practising waste reduction and recycling in daily lives, as well as to complement the Municipal Solid Waste charging (MSW charging) to be implemented by the Government on April 1, 2024, the Environmental Protection Department is taking forward the community recycling network GREEN@COMMUNITY and launched a food waste collection trial scheme in public rental housing (PRH) estates (the trial scheme) on October 30, 2022. In this connection, will the Government inform this Council:

(1) given that the facilities provided under GREEN@COMMUNITY include Recycling Stations, Recycling Stores and Recycling Spots, whether the authorities will set up more such facilities in various districts, especially those currently without Recycling Stations, in preparation for the implementation of MSW charging; if so, of the timetable; if not, the reasons for that;

(2) whether more temporary recyclables collection points will be set up prior to the next Lunar New Year and the implementation of MSW charging, so as to cope with the large number of recyclables delivered by members of the public within a short period of time; if so, of the details; if not, the reasons for that;

(3) whether the amount of food waste collected so far under the trial scheme has met the expectations; as the Government has set a target to extend the trial scheme to cover a total of 100 blocks of PRH estates in 2023-2024, whether it will implement the trial scheme further at other blocks of PRH estates after the target has been met; if so, of the timetable; if not, the reasons for that; and

(4) whether the Smart Food Waste Bins have been checked and cleaned regularly to ensure their proper functioning and prevent hygiene problems; if so, of the details; if not, the reasons for that?

Reply:

President,

My reply to the question raised by the Hon Chan is set out below:

(1) and (2) The Environmental Protection Department (EPD) has been expanding the community recycling network to strengthen the support for recycling facilities at the district level. There are currently 11 Recycling Stations emphasising on both environmental education and recycling support, 33 Recycling Stores located in close proximity to clusters of single-block buildings and over 120 Recycling Spots operating weekly at fixed time and locations in the form of kerb-side collection booths under the GREEN@COMMUNITY throughout the 18 districts in Hong Kong for the collection

of nine common types of recyclables. These include glass containers, plastics, small electrical appliances, fluorescent lamps, rechargeable batteries and beverage cartons, which are lack of commercial recycling activities. The service of the GREEN@COMMUNITY has covered about 80 per cent of the single-block buildings (including "three-nil" buildings).

In addition, the first Recycling Store located in an MTR station, namely GREEN@TSING YI, will come into operation in the first quarter of 2024. The operator has already started to provide Recycling Spots and housing collection services in Kwai Tsing District since October this year. The 12th Recycling Station, namely GREEN@WONG TAI SIN, is expected to commence operation in the fourth quarter of 2024.

Strengthening the recycling support in public rental housing (PRH) estates will facilitate the implementation of municipal solid waste (MSW) charging. The EPD plans to develop a network of Recycling Stores in PRH estates to enable the residents and those living nearby to participate in clean recycling and enhance the cost-effectiveness of the recycling network. The first two Recycling Stores in PRH estates, namely GREEN@KWAI FONG and GREEN@TAI WO HAU, have commenced operation in late June this year. The EPD prepares to expand the network to 50 PRH estates progressively starting from the end of this year. Tender assessment is now underway.

The EPD will review from time to time the operation of all community recycling facilities and specific needs of individual district for recycling facilities to improve the service of the community recycling network. Prior to the Lunar New Year and the implementation of MSW charging next year, the EPD will adopt measures such as increasing the number of Recycling Spots and extending the service hours in order to cope with the possible increase in the amount of recyclables. In addition, before the implementation of MSW charging, 50 new Recycling Stores in PRH estates will commence operation progressively and the number of public collection points in Hong Kong will be increased to over 220.

(3) The EPD, in collaboration with the Housing Department (HD) and the Hong Kong Housing Society, launched the Trial Scheme on Food Waste Collection in PRH Estates (the Trial Scheme) in end-October 2022. Under the Trial Scheme, smart recycling bins equipped with overflow prevention and odour abatement devices are used to collect food waste for better environmental hygiene, and "GREEN\$" rewards are provided to encourage residents' participation. The Trial Scheme has been extended to 13 PRH estates (with a total of 101 blocks), covering about 170 000 residents as at mid-September this year, which is six months earlier than the original target schedule.

Since the launch of the Trial Scheme for a year, more than 1 200 tonnes of food waste have been collected, with a daily average of about 5 tonnes. The quantity of food waste collected is in line with our expectations, and over 50 per cent of the households in some PRH estates have used the smart recycling bins. Overall speaking, the Trial Scheme has been well received by PRH residents with positive comments. With the implementation of MSW charging on April 1, 2024, it is expected that the public demand for food waste

recycling will continue to increase. In this regard, the EPD has embarked on the progressive installation of smart recycling bins in all PRH estates (involving about 1 400 additional housing blocks) targeting for completion by 2024 to further encourage domestic food waste recycling.

(4) The EPD attaches great importance to the operation and hygiene conditions of smart recycling bins, and regularly deploys staff to conduct inspections at the participating PRH estates. The contractor also provides maintenance services for the smart recycling bins. The recent inspection results have shown satisfactory hygiene conditions at the smart recycling bins and their surrounding areas. As the smart recycling bins are usually installed at fully ventilated locations near entrances of PRH blocks and equipped with odour abatement devices, odour problems would not be caused under normal circumstances. In addition, when the smart recycling bins have reached about 70 per cent of their full capacity, the system will automatically send phone messages to frontline cleansing staff, ensuring that they have sufficient time to replace the inner bins and avoid potential environmental hygiene problems arising from overflowing.

In view of the implementation of the Trial Scheme, the EPD has provided additional resources to the HD to ramp up its manpower for enhancing cleansing services at the participating PRH estates, including maintaining cleanliness of the smart recycling bins and their surrounding areas, replacing food waste filled inner bins and properly storing them temporarily at designated locations in the PRH estates (e.g. central refuse collection points). These would facilitate the daily collection of food waste by EPD's contractors for delivery to the treatment facilities for recycling.

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## [Speech by FS at Asia-Pacific Business Forum 2023 \(English only\) \(with photos/video\)](#)

Following is the speech by the Financial Secretary, Mr Paul Chan, at the Asia-Pacific Business Forum 2023 today (November 22):

Ms Alisjahbana (Under-Secretary-General of the United Nations and Executive Secretary of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), Ms Armida Salsiah Alisjahbana), George (Chair of ESCAP Sustainable Business Network (ESBN), Dr George Lam), Poman (Co-Chair of ESBN Task Force on Finance, Ms Poman Lo), distinguished guests, ladies and gentlemen,

Good morning. It is my pleasure to welcome the Asia-Pacific Business Forum back to Hong Kong – the second time in the past five years that this

prestigious event is held here.

I spoke to you then, in 2018, focusing on innovation, technology and finance, all central to our green transformation goals.

Today, we gather to discuss and explore the tremendous business opportunities that green transition could present. But for a start, allow me to share with you the discussions at the recent APEC (Asia-Pacific Economic Cooperation) meetings which had gathered together the prominent leaders and ministers from around the Asia Pacific.

The global scene

Combating climate change, along with promoting sustainable and inclusive development, had topped the agenda of the APEC meetings. Leaders all acknowledged that the world would continue to be confronted by profound challenges posed by the impacts of climate change, and more intensive, co-ordinated efforts are needed to fight them.

Green transition involves a huge amount of investment. Estimates have indicated that Asia alone will need US\$66 trillion in the coming three decades. China alone is US\$14 trillion. It is clear that governments cannot fund them on their own. The private sector's resources must be effectively mobilised.

How to make this materialise, and how the business community may benefit from this process, are subjects on which experts in this prestigious forum will enlighten us.

Here, allow me to take a few minutes to bring you up to date on Hong Kong's progress on the road to carbon neutrality.

Hong Kong's path to decarbonisation

For decarbonisation, we have come a long way.

In response to the Paris Agreement in 2015, we first announced an action plan in 2017. At that time, the target was to reduce up to 36 per cent of total carbon emissions, based on 2005 levels, by 2030.

In 2021, we announced Hong Kong's Climate Action Plan 2050, setting out two clear targets: first, achieving carbon neutrality before 2050, and second, reducing carbon emissions by 50 per cent from our 2005 levels before 2035.

Hong Kong is a small and compact city with a relatively insignificant industrial and production base. Therefore, our sources of carbon emissions come mainly from electricity generation, which accounts for two-thirds of our carbon emissions. Buildings, in particular, account for 90 per cent of all electricity generation in Hong Kong. Transport comes second as another major source of carbon emissions, accounting for 19 per cent, and waste, 8 per

cent.

The Hong Kong SAR (Special Administrative Region) Government is therefore taking four major decarbonisation strategies to address these sources of emission.

The first is to achieve net-zero electricity generation. That includes phasing out coal for daily electricity generation, and increasing the share of zero-carbon energy to 60 to 70 per cent by 2035. Ultimately we will achieve net-zero carbon emissions in electricity generation before 2050.

Second, saving energy in buildings. Through promoting green buildings, improving their energy efficiency, and promoting a green lifestyle, we are on the way to reducing electricity consumption of commercial buildings and residential buildings by 30-40 per cent and 20-30 per cent respectively by 2050.

Third, promotion of green transport. To that end, we plan to cease new registration of fuel-propelled and hybrid private cars by 2035, or earlier. In addition, we are promoting other new-energy transport.

In the first half of this year, more than 60 per cent of newly registered private cars in Hong Kong were EVs (electric vehicles), I'm pleased to note.

Finally, waste reduction. While reducing municipal waste is pivotal, we are also developing state-of-the-art, waste-to-energy facilities to tackle our remaining emission sources.

And the latest addition announced in the Chief Executive's Policy Address this year is the formulation of a strategy on hydrogen development in early 2024, to promote the adoption of hydrogen fuel as zero-carbon energy.

Ladies and gentlemen, in the next 15 to 20 years, the Government will devote about US\$30 billion to implement the above-mentioned climate-change mitigation and adaptation measures.

I believe the Government's climate budget will also boost private-sector investment, as companies become increasingly aware of the benefits that green practices can bring.

Going green, beyond Hong Kong

But Hong Kong aside, this Government is very much aware of the promise that green transformation can deliver to the region and the world.

Given that Hong Kong is an international financial centre, I am confident that we will also rise as an international centre for green finance.

Let me tell you why.

Last year, the total green and sustainable debt arranged or issued in Hong Kong exceeded US\$80 billion. That was up more than 40 per cent, year on year.

And the volume of green and sustainable bonds arranged in Hong Kong accounted for one-third of Asia's total issuance. Those bonds are denominated in different currencies, in US dollars, euros, Renminbi and Hong Kong dollars. They are with a tenure of up to 30 years.

Carbon markets will also play an important role in green transition. In October last year, the Hong Kong Stock Exchange launched Core Climate. It is the only market settling voluntary carbon credits in both Hong Kong dollars and Renminbi. Our goal is to make Hong Kong a global market for high-quality, voluntary carbon credits.

Meanwhile, technology will play an increasingly important role in expediting green transformation and achieving carbon neutrality.

In Hong Kong, green technology is thriving, with many outstanding research teams and start-ups in our universities, as well as Science Park and Cyberport. Many have come up with innovative solutions which are now selling in overseas markets.

Indeed, together with sister cities in the Greater Bay Area, we will rise as a global green tech and green finance centre, powered by a complete financial and industry chain.

#### Concluding remarks

Ladies and gentlemen, the HKSAR Government, let me emphasise, is committed to working with the business sector to realise Hong Kong's green transformation.

I am grateful to the organisers of this year's Asia-Pacific Business Forum, the United Nations Economic and Social Commission for Asia and Pacific, and its Sustainable Business Network for organising this meaningful event in Hong Kong.

My thanks also go to Dr George Lam and Ms Poman Lo for their critical roles in making this year's Forum possible.

They both, let me add, are members of the Green Technology and Finance Development Committee that I set up this year to put together an action agenda to promote the development of green technology and finance in Hong Kong.

I wish you all a productive and rewarding Forum, and the best of business in the year to come.

Thank you.

