



Hong Kong Green Strategy Alliance

香港綠色策略聯盟

Unit G, 7/F, Century Centre, No. 33-35 Au Pui Wan Street, Fotan, Shatin, N.T., Hong Kong.

23 September 2020

Mr WONG Kam-sing, GBS, JP
Secretary for the Environment
Hong Kong SAR Government

Dear *K.S.*,

**Suggestions to prominent environmental issues
for the 2020-21 Policy Address Consultation**

I am pleased to send you for your reference a copy of the submission from the Hong Kong Green Strategy Alliance (HKGSA) to the Chief Executive, sharing our views and comments regarding the prominent environmental issues for the 2020-21 Policy Address. Please find enclosed the covering letter to the Chief Executive and the submission in Appendix A for your perusal.

Should you need any further information, please feel free to contact me at 9032 3816 (drwklo@gmail.com) or our Honorary Secretary Ir Kenny Wong at 9482 3227 (irkennywong@gmail.com).

Yours sincerely,

Ir Dr. Hon LO Wai Kwok, SBS, JP
Chairman, Hong Kong Green Strategy Alliance

Encl.



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23 September 2020

The Hon Carrie Lam, GBM, GBS
The Chief Executive
Hong Kong SAR Government

Dear *Carrie*,

**Suggestions to prominent environmental issues
for the 2020-21 Policy Address Consultation**

The Hong Kong Green Strategy Alliance (HKGSA) would like to share our views and comments regarding the prominent environmental issues for the 2020-21 Policy Address. Please find enclosed our submission in Appendix A for your perusal.

HKGSA is a non-profit making organization founded in 2012 by a group of professionals and stakeholders who are visionary and wish to undertake the responsibility on the issues of environmental protection and sustainable development. Through active participation, discussions and exchange of views in green issues, projects and technologies etc., HKGSA would offer our professional opinions and solutions to tackle green issues in Hong Kong and neighbouring region.

Should you need any further information, please feel free to contact me at 9032 3816 (drwklo@gmail.com) or our Honorary Secretary Ir Kenny Wong at 9482 3227 (irkennywong@gmail.com).

Yours sincerely,

Ir Dr. Hon LO Wai Kwok, SBS, JP
Chairman, Hong Kong Green Strategy Alliance

c.c. Mr WONG Kam-sing, Secretary for the Environment

Encl.

Recommendations from the Hong Kong Green Strategy Alliance to 2020-2021 Policy Address

The Hong Kong Green Strategy Alliance (HKGSA) proposes the following for the Government's consideration. We have previously suggested the Government to arrange a meeting with the associations which had provided suggestions on Chief Executive's policy address to exchange views of both sides for enhancing the mutual understanding. HKGSA highly appreciates this arrangement this year which could let the associations understand the Government's constraints in implementing the suggestions.

General

- (1) Since the outbreak of COVID-19, the world including Hong Kong is facing the most challenging crisis ever since. The emergence of diseases transmissible between animals and humans truly reflects that if human continues to encroach on fragile ecosystems, this will increase the risk of disease emergence and amplification. The pandemic, however, presents both an enormous challenge and tremendous opportunities for reaching the United Nations' 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (UNSDGs) aiming to address the global challenges including those related to environmental degradation, poverty, inequality, climate change, etc. It is important that human has to achieve them all by 2030. HKGSA previously suggested and still holds the views that the Government should grasp this opportunity to take the leading role and integrate UNSDGs consideration in policies formulation, decision-making and project implementation processes with a view to transforming Hong Kong into a sustainable and healthy city. Similar to other developed cities, we look forward to the actions taken by the Government in response to the progress and regular reporting to achieve the UNSDGs.

- (2) To alleviate the pandemic's impact on new graduates, HKGSA supports a subsidy programme launched for them under the Green Employment Scheme of the Environment Bureau aiming to subsidise private companies to provide job opportunities for those interested in environment-related fields. Similarly, it is encouraging to learn that the Government announced a total of 1750 places of salary subsidy to support employers of private organisations to recruit graduates and assistant professionals of the engineering, architectural, surveying, town planning and landscape sectors. It is hoped that the subsidy could help graduates and assistant professionals of the relevant professional fields.

- (3) July 2020 tied with July 2016 as the second-hottest month was ever recorded for the Earth, according to a report released by the National Oceanic and Atmospheric Administration. This well indicated how severely climate change is affecting everyone. The Council for Sustainable Development, on behalf of the Government, conducted a public engagement on “Long-term Decarbonisation Strategy” with a view to drawing up Hong Kong’s mid-century long term low GHG emission development strategy for the Government, in line with the Paris Agreement. HKGSA looks forward to the early release of engagement results, with which the policy framework and its roadmap outlining the long-term absolute carbon reduction targets for 2050 and beyond could be established for the public, thereby contributing to the global decarbonisation efforts as a corporate citizen of the Earth. Carbon emissions in Hong Kong from the power sector account for more than 60% of its total emissions. While the gradual increase use of gas to replace coal for power generation according to the retirement schedule of coal-fired units can reduce the carbon footprint in the coming decade, Hong Kong, as a developed city, should pursue efforts to achieve a more audacious carbon reduction targets of limiting to either 1.5 degree C or 1.5 degree C to 2 degree C by sourcing the clean and non-carbon energy (i.e. nuclear/RE) through regional collaboration. With the advancement of RE technologies in recent years, the HKGSA supports the installation of the commercial scale offshore wind farms previously proposed by two local power companies in the medium term between 2020 and 2030. To achieve carbon neutrality by 2050 as the long-term target, HKGSA suggests that the Government would look for ways to import reliable and affordable zero-carbon energy for HK across the border through regional collaboration from other places or develop those clean energy sources that have potential but not yet market ready such as hydrogen. For the regional collaboration, the transmission system should be constructed in a way to ensure a high level of reliability while the power supply system will need to be a back-up from local generation sources. The transition in the years ahead means an opportunity for Hong Kong to develop the necessary technologies and expertise, which is essential to cultivate a low carbon and resilient economy.
- (4) We fully support the aim of the Innovation and Technology Bureau to develop Hong Kong into a knowledge-based economy and an innovation hub for technology and its application in the region. With the advanced progress of technologies (such as internet of things, wide application of mobile apps and drones, virtual reality, artificial intelligence, chatbots, big data analysis, etc.),

HKGSA previously requested the Government to reform outdated legislations with a view to promoting the development of innovation and technology. Only when outdated legislations are phased out, the collaborative consumption or sharing of economies such as car sharing service, which aims to decrease waste of both physical materials and resources, as well as to reduce carbon emission, can be realized. HKGSA wishes to know the progress of the work.

- (5) To meet the high demand for housing land and improve quality living environment, the Chief Executive has announced the reclamation in the Central Waters for developing the Kau Yi Chau Artificial Islands under the Lantau Tomorrow Vision in her Policy Address 2019. HKGSA supports that the Lantau Tomorrow Vision is a viable solution to increase the supply of land for housing development in the medium to long term, under which the artificial islands would link Lantau Island and Hong Kong Island together with power supply from two local generation sources. HKGSA is of the view that subject to the resource's allocation, the Government should conduct the relevant engineering design and environmental impact assessment stages in a suitable time.

- (6) HKGSA understands from the relevant trades that as per the requirements of Environmental Permits and Licences under the relevant environmental ordinances, project proponents are regularly required to submit the hard copies of the EM&A or other related reports. Since the reports contain a lot of information, project proponents or licence owners need to use a lot of papers. HKGSA previously requested the Government to review the necessity of hardcopies since the soft copy in forms of e-version should also serve the purpose. According to the Centre for Health Protection under of the Department of Health, the main mode of COVID-19 transmission is through respiratory droplets and the virus can also be transmitted through contact. To minimize the risk of infections through paper contact, HKGSA consider it appropriate to replace the hardcopy report with the softcopy one as far as practicable. Furthermore, a common server should be established between the Government and EIA consultants to exchange views on the draft EIA reports to save a large amount of papers used for production of draft EIA reports during the initial stage of EIA process. All of these suggestions aim to save papers and reduce risk of disease transmission.

Solid Waste

- (7) Since the "Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022", the generation rate of Municipal Solid Wastes (MSW) has gradually increased from 1.33 kg/capita in 2013 to 1.53 kg/capita in 2018, representing a 20 per cent

increase since 2013. The causes for the substantial increase in waste per capita should be investigated and remedy measures be formulated to halt the further deterioration.

- (8) Over 70% of these wastes were disposed of at the three strategic landfills in 2018, which is clearly not a sustainable way of managing wastes. Besides, this rising trend is very worrying, and the targets set forth in the Blueprint are unlikely to be achievable. COVID-19 has intensified the need for a comprehensive review of a circular approach to resource management which the support of applicable policies, appropriate facilities and innovative technologies to tackle the rising levels of medical waste (i.e. personal protective equipment) and single-use disposable waste (e.g. take-away food boxes). To counteract the mask disposal problem, the CuMask+ initiative launched by the Government in early May is an innovative approach.
- (9) We do not run short of state-of-the-art hardware for waste management in Hong Kong, with the Integrated Waste Management Facilities (IWMF) coming into operations in 2024, handling some 3,000 tonnes of waste every day. The extension works of the SENT Landfill is ongoing, and similar extension at the NENT Landfill shall also commence shortly. T-Park and an ORRC-1 are also operating, with ORRC-2 coming online soon. To address the crux of the issue (i.e. reducing waste generation), HKGSA opines that efforts shall now be focused on the "software" (policy and initiatives) side, creating and amplifying the synergetic effects of thesees hardware and software, thus materializing the overall direction and master plan on waste management, visible to everyone including the general public.

(i) Bill on MSW Charging

HKGSA noted with great disappointment that the Bill of MSW Charging did not make its way through the LegCo in the past session, and still opines that the proposed quantity-based MSW charging scheme is one of the most effective tools to drive (and accelerate) behavioral change, as evident in the charging schemes on construction and demolition (C&D) wastes and plastic shopping bags. While deliberations may still be challenging at the LegCo in view of the foreseeable economic downturn, HKGSA suggests the Government may commit to commence the charging scheme with sufficient preparation time, such that both the Government and public (including C&I and domestic sectors) can well prepare for its

implementation. At the same time more MSW charging trials can continue to run in the territory to let more stakeholders to experience its pros and cons. When the real charge is in place (say in around 3 years' time), hopefully the community can regain its economic momentum and be ready for it.

Further, the Government shall be prepared to flexibly and timely adjust the minute details on charging to minimize nuisance to the public while realizing the original intent of the scheme. The scheme will "evolve" over time, and it will be pointless to debate over the littlest issue and missing the big picture while waste generation rates keep rising.

There shall be little dispute that waste charging is for the betterment of Hong Kong and our future generations on the long run, but unfortunately the subject has been under discussion for decades and is too long. Positive and constructive actions need to be taken now. There is clearly no advantage of stalling and delaying further. We must start somewhere.

(ii) Recycling

"Waste" is defined as something "someone does not want", and its definition is highly dependent upon the economic development of a particular area or country. With increased economic growth and environmental awareness in the nearby regions, Hong Kong's recycling industry can no longer rely on exporting raw recyclables, but need to re-industrialize to process and upgrade recyclables to meet the more stringent requirements of the international recyclable market.

This is clearly unachievable without supports from the Government. HKGSA is delighted to see that some degree of success has been realized with the Recycling Fund, the Technology Voucher Programme and other funding programmes. While these programmes have been frequently updated and adjusted to suit the changing market environment, HKGSA would prudently point out that some essential recycling activities and their processed recyclables, at their best, will not be commercially feasible on their own.

The Government needs to focus on these otherwise environmentally damaging wastes (recyclables) to ensure their proper and continual

management, and be prepared to provide timely subsidies and concessions. The concept of subsidies and concessions shall not be new to the Government (e.g. LPG, electric vehicles, and the recent subsidy on waste paper) and the general public, just less so to the environmental-related aspects at this present moment but shall be encouraged.

(iii) Education and Public Awareness

While some large-scale recycling facilities (e.g. WEEE Park and ORRCs) have been (or will be) constructed, they do not quite get to the minds of the general public - the main target audiences and drivers for reducing wastes. The Community Green Stations (CGS), in general, are perceived as locations to dispose of recyclable objects. The awareness of the general public shall be further increased on the subsequent processing and fates of these recyclables, reinforcing the quantifiable positive results and meaningfulness of their recycling efforts, but not in landfills as wrongfully perceived. The Government should strengthen collaboration between CGSs and NGOs in extending the waste recovery and recycling network and expanding public education coverage to local communities.

The Government shall further enhance educations and promotions in primary and secondary schools, including funding or subsidizing trial recycling schemes and recycling equipment, to implant the environmental mindset in our young generations for a more sustainable environment and future. Once the momentum of this “healthy” cycle is established, it shall be self-sustaining on its own.

(10) Online shopping has become more popular in recent years, and even more so nowadays during this period of COVID-19. The environmental issues associated with excessive packaging materials and disposal thereof shall be tackled properly. HKGSA had previously suggested the Government to prepare a policy framework to this effect and wishes to know the progress.

(11) Further, we also notice that some of the retail shops which do not charge on the plastic shopping bags (PSB) on non-exempted products. The situation has not been improved. HKGSA previously suggested the Government to enhance the enforcement actions on regulating the free distribution of PSB issue and wishes to know the progress. We would also like to get an update from the Government on the result of her review on the present levy level.

- (12) In all, if the MSW charging scheme is implemented and the general public understands and appreciates their efforts in recycling, HKGSA believes that the entire landscape and ecology of the recycling industry will change for good. Commercially viable recyclables will get processed and reused. With proper funding and subsidies, the environmental hazards of other non-viable recyclables will also be significantly reduced, and some of them may even be able to find their way into the reusable stream. Only with the above vision can a sustainable way of managing wastes be realized for Hong Kong on the long run.
- (13) About one third of the municipal solid waste (MSW) landfilled each day in Hong Kong come from food waste. HKGSA strongly supports the implementation of different approaches to tackle the food waste problem in Hong Kong as stated in “A Food Waste & Yard Waste Plan for Hong Kong 2014 – 2022”. FoodWise Hong Kong Campaign was formally launched in May 2013 with the target of avoiding about 5 to 10% of food waste by 2017/18. While O-Park 1 has been put into operation and O-Park 2 is under construction, the Government should accelerate the development of other organic resources and recovery centres (ORRCs) and explore more alternatives in diverting food waste from landfilling by conducting the site search and EIA study soonest possible with a view to identifying suitable locations or developing further organic waste treatment facilities, both centralized and decentralized ones, based on geographic location, quality and quantity of organic waste, financial set-up (government-owned, privately-operated, voluntary, or even quasi-), etc. At the same time the Government should review the development plan for ORRCs given the low volume of food waste collected for treatment in O-Park 1. The Government is urged to explore and secure viable and reliable channels to increase the collection rate of food waste to tie in with the development pace of more ORRCs. HKGSA suggests the Government to allocate more resources in developing and testing viable waste-to-value solutions for food waste. HKGSA also welcomes other schemes, e.g. the FoodSmart Partnership Programme initiated by the Food and Beverage (F&B) Sector to joint hands among related stakeholders and the community in reducing food waste disposal. The Government should also provide support (in terms of resources and technical) to the Food & Beverage Trade to actively conduct food waste minimization, surplus food donation, as well as food waste source separation (such as sorting table at fast food chains like Korea), collection and recycling. Regarding the food waste collection and transportation, HKGSA suggests the Government to allocate adequate resources to Food Waste Recycling Group to propose innovative and cost-effective ways of

collecting and transporting food waste from commercial sectors and households to tackle the long-lasting problem of segregating and storing food waste in Hong Kong.

- (14) It is learnt that Hong Kong people are recycling less than 10 per cent of the plastic bottles they consume. Beverage container-deposit is an economic incentive to drive consumers to return their beverage containers after consumption. While we understand that the Government is conducting an evaluation for the possibility and effectiveness of a PRS scheme on plastic beverage bottles, we would like to know the progress and the timeline of implementation. Also it is glad to learn that the Government has intensified the trial of Reverse Vending Machine (RVM) in order to gauge the response from the community. Perhaps like the WEEE PRS but at a much faster pace, EPD can fast track and provide sufficient subsidies to those who can collect and recycle any plastics in Hong Kong.
- (15) HKGSA previously suggested the Government to reduce the use of plastic products by making reference to what the European Commission recently proposed new restrictions on 10 single-use plastic products most often found on beaches and in seas, including single-use plastic cutlery, straws, and plates, etc. Despite that there are many beach clean-up activities carried out annually, the coastal pollution by floating trash from Pearl River Delta (PRD) region is still worrying, e.g. it was reported that the coastal line from Tung Chung to Tai O (where many tourists love to visit) is full of rubbish. HKGSA previously urged the Government to strengthen the cooperation with the PRD so that appropriate measures would be implemented in the region with a common view to stop illegal dumping into the sea and wishes to know the progress.
- (16) WEEE Park adopts state-of-the art technology to process refrigerators, TVs, computers, washing machines and air conditioners into valuable secondary raw materials. HKGSA previously suggested and still holds the view that the Government should extend its scope to mobile phones. For those electronic wastes which do not fall in the defined categories, we suggest the Government to make more promotion about Community Green Stations which could provide assistance for tackling other e-wastes.
- (17) With the first beverage cartons recycling plant commissioned in Hong Kong, HKGSA urges the Government to work with major beverage cartons producers to

look for possible ways to collect and recycle these waste. If voluntary action from these producers are not effective, the Government should consider to launch a PRS to lessen the burden on landfills.

- (18) One of the big changes resulted from COVID-19 pandemic is the blooming of online learning. According to a recent media report, tenth of thousands of under-privileged school students do not have access to computer facilities for their daily school online learning. The Government is urged to enhance the reuse and recycling of the collected or donated computers and provide free computers to the needy after proper repair/upgrading as necessary.

Air Quality

(19) HKGSA strongly supports the implementation of a series of holistic approaches through the air quality management system and measures to tackle local air pollution problems arising from roadside, ships and power plants. HKGSA welcomes the good progress of each approach. HKGSA support extending the Cleaner Production Partnership Programme to March 2025 with funding of \$300 million to encourage factories, the transport infrastructure proposals for the five railway projects to improve regional air quality as committed in CE Policy Address 2019.

(20) The current Air Quality Objectives (AQOs) took effect in January 2014. Under the Air Pollution Control Ordinance, it is required to review the AQOs at least once every five years. We understand the review has been completed with the recommendation to tighten the three AQOs (including 24-hour AQO of sulphur dioxide (SO₂), the annual and 24-hour AQOs of fine suspended particulates (PM_{2.5})). HKGSA supports EPD to introduce an amendment bill to the LegCo for vetting and promulgating the new AQOs as soon as possible to further improve air quality in Hong Kong.

(21) The Clean Air Plan for Hong Kong was published by EPD in 2013 and its progress report from 2013 to 2017 was released. HKGSA suggests EPD to update the progress up to 2020 so that Hong Kong people could know more the air quality management plan initiated by EPD for Hong Kong and joint collaboration with Guangdong Province to further improve the regional air quality. In reducing roadside air pollution and shipping emissions for improving air quality in Hong Kong, HKGSA supports the pilot scheme for electric ferries and light buses, the use of electric construction equipment/machinery and the review of the new

energy transport fund, the ex-gratia payment scheme for phasing out Euro IV diesel commercial vehicles. Many countries in Europe have announced measures to phase out petrol and diesel vehicles in favour of electric vehicles or cleaner vehicles using hydrogen as fuel. HKGSA suggests the Government to engage the relevant stakeholders for reviewing the phase out program and formulating the roadmap. The Government should organize workshops for sharing the successful testing of green innovative transport technologies with the public.

(22) HKGSA is of the view that smart low emission transport and avoidance of congestion are important to provide a healthy and clean Hong Kong. We understand that the Government has studied the application of the electronic road pricing (ERP) system for years and overseas experiences show that over 10% reduction of traffic volume in the charging zones could be achieved. We strongly urges the Government to wrap up the issues including the charging mechanism, technology so that the pilot scheme with adequate protection of privacy could be implemented as soon as possible.

(23) It is noted that the growth of EV has slowed down as a result of the revised tax concession on the purchase of EV. On the other hand, the no. of newly registered vehicles continues to increase. This worsens the local road side air quality in Hong Kong. HKGSA urges the Government to review the tax system so that the use of EV with consideration of more brand names, could be widely promoted, while at the same time, the overall growth of new vehicles running on the road is tightly controlled. In CE Policy Address 2019, the HK\$2 billion pilot subsidy scheme is provided to promote the installation of electric vehicle charging-enabling Infrastructure in car parks of existing private residential buildings. In view of possible wider use of EVs in long term in Hong Kong, end-of-life EVs and the associated retired components would be a future waste concern. The Government should formulate strategy to tackle the end-of-life EVs and the associated waste, such as tyres and batteries. We suggest the Government to explore possibility to reuse and recycle, and establish large scale recycling plant to facilitate the processing of those components. HKGSA is pleased to note that the Government would explore the use of old EV batteries as an electrical energy storage system for the power grid. HKGSA urges the Government to examine the development strategy for environment-friendly vehicles in Hong Kong, and in response to changes in the market and technology, make timely adjustments to the policy on the promotion of EVs and to examine the relevant provisions of the Buildings Ordinance to mandate the provision of

charging facilities.

(24) As evidenced by the attack of the severe typhoons Hato and Mangkhut in 2017 and 2018 respectively, Hong Kong still maintained a high reliable electricity supply thanks to local power generation. HKGSA supports diversifying the sources of natural gas supply with the use of floating storage and regasification unit (FSRU) to improve fuel security and to enhance bargaining power in the international market for gas supplies. HKGSA urges the Government to work closely with the power companies to ensure that FSRU could be put in service tentatively in 2022 and to promote the Environmental Management Funds of HK\$ 100 million under the FSRU project to benefit the community at large.

Climate Change and Energy Efficiency

(25) HKGSA supports the information including estimated energy performance / consumption, results of assessment under BEAM Plus certification and greenery areas of the developments are considered in GFA concession scheme in private developments. EMSD has posted Energy Utilisation Index (EUI) for the existing office buildings calculated from energy audit requirements under Buildings Energy Efficiency Ordinance in a way that the public is aware of their energy saving performance. However, the data may not truly reflect the actual situations since they are either single-tenant office building or multi-tenant office buildings, their gross floor areas and occupancy rates are different. Some of them even contain shopping mall. HKGSA previously suggested the Government to group them into appropriate categories for the sake of apple to apple comparison and wishes to know the progress.

(26) Hong Kong, as a developed city, should continue to increase the portion of renewable energy (RE) in fuel mix. HKGSA welcomes the implementation of feed in tariff (FiT) scheme as an incentive which is limited to RE coming from wind and solar powers under the new Scheme of Control Agreement. It is encouraging to see that some organizations achieving carbon neutrality would pay higher price than normal tariff to purchase such green power in terms of RE certificates. The revenue generated from the RE certificates will help alleviate the overall tariff impact on all consumers brought about by the introduction of the FiT scheme. However, with the increasing use of PV panels for power generation, HKGSA retains the view that the retired PV panels after the end of their life spans would become another sources of solid waste, HKGSA has previously requested the Government to study how to recycle their useable materials and wishes to know the progress. Furthermore, in order to encourage development of different

kinds of RE for promoting innovation, HKGSA suggests that the Government can consider expanding the FiT Scheme to cover other types of RE generation other than wind and solar power with similar financial incentive.

(27) Regarding the use of biodiesel, it seems that only one franchised oil company in Kowloon side sells 5% biodiesel blend product for customers seeking to meet their greenhouse gas emission reduction and sustainability goals. Furthermore, HKGSA supports the wide use of biodiesel made from locally produced waste cooking oil and is pleased to note that with the increasing market demand, at present a total of three petrol stations are supplying biodiesel in Hong Kong International Airport, Tai Po and Tsing Yi. HKGSA previously suggested the Government to review with the oil companies and see whether they could sell the biodiesel in the whole territory of Hong Kong including Hong Kong Island so that those customers at Hong Kong Island could consume biodiesel as an additional source of renewable energy to reduce carbon footprints.

Biodiversity Strategy

(28) Given that the conservation of biodiversity is important to the sustainable development of Hong Kong, the Biodiversity Strategy and Action Plan (2016-2021) was formulated to step up biodiversity conservation. HKGSA understands that the action plans and their effectiveness have been reported to the Advisory Council on Environment in 2019. AFCD is suggested to continue to widely promote community involvement in conserving biodiversity and consider the establishment of available baseline data for flora and fauna, marine as far as practicable in Hong Kong). Sharing of these data/knowledge would be essential for Hong Kong people to make concerted effort to protect flora and fauna, marine and endangered species.

Fresh Water Supply

(29) In the face of climate change, fresh water would undoubtedly become scarce in the future. Given that there is over reliance on imported water, HKGSA welcomes that the Water Supply Department had completed a review on the total water management strategy in 2019. In the review, the forecast of water demand and supply methodologies and projections up to 2040 have been updated. While multiple criteria (viz. resilience, economics and sustainability) is adopted, key initiatives of containing fresh water demand include further promotion of water conservation, water loss management and expansion of use of lower grade water for non-potable purposes. To build resilience in fresh water supply, the design

and construction of the desalination plant in Tseung Kwan O has commenced in December 2019 and the desalination plant is expected to commence operation in 2023 with a water production capacity of 135 000 cubic metres per day. The Government should encourage the developer to adopt the use of lower grade water for non-potable applications through rainwater harvesting or grey water recycling system installed on-site treatment and recycling facilities. While black water recycling is still relatively few in Hong Kong, but there are over 200 such systems ranging from 5 m³/day in public toilets to 2,000 m³/d system in private housing developments for toilet flushing are in operation in Hong Kong already. Perhaps more government recognition, promotion and support on this direction will encourage more technologies and users, which will lessen the reliance on the precious fresh water supplies.

Marine Water Quality in Hong Kong

(30) In the old densely-populated coastal areas, marine odour nuisance was caused by the discharge of wastewater from buildings into the sea through the stormwater system instead of public sewers network. While HKGSA previously suggested the Government to speed up the proposed work for improving the performance of the stormwater drainage systems such as dry weather flow interceptors in Tusan Wan and West Kowloon with growing populations along their coastal areas, the ultimate solution to the odour problem is to require all the wrongly connected foul water to storm drains from buildings be re-connected to the public sewers network. As long as the misconnected sewers remain unrectified, a huge volume of effluent will continue to flow into the sea and cause odor problems day after day. Such a situation is highly unsatisfactory. The odor issue has dragged on for years. HKGSA welcomes that the Ombudsman has started to conduct an investigation into the misconnection of sewage pipes at private buildings to the stormwater drainage system, which results in a huge volume of waste flowing into the sea. It is hoped that the situation could be improved to benefit the public as soon as possible.

Review and Development of Water Quality Objectives (WQO)

(31) WQOs have served as an assessment of how the Government is doing in protecting water body. It is necessary to review the objectives in the light of new scientific and technological advances in understanding and monitoring water quality. Since the water quality situation is directly associated with the WQO which have been adopted for decades, HKGSA understands that review and development of WQO include two stages of public engagement. The first stage

on the review methodology has been completed ten years ago in 2010. The second engagement on any proposed changes has not yet been kicked off. Given that review of WQO will certainly protect marine waters of high ecological values, HKGSA previously suggested the Government to speed up the process and wishes to know the progress.

- (32) Micro-plastics have long been proven damaging to marine ecology and threatening the health of marine life. HKGSA urges the Government to expedite the control on the use of micro-plastics in commercial commodities such as skin care and cosmetic products by reviewing the effectiveness of the voluntary action by trades and industries in reducing or eliminating the use of micro-plastics and consider any need for developing relevant legislative control.

Environmental Impact Assessment

(33) The Environmental Impact Assessment (EIA) mechanism of Hong Kong is well known for its comprehensiveness and effectiveness in pre-empting environmental impacts arising from engineering projects. The system has been in place since 1998 and it is a good juncture to conduct a comprehensive review of the EIA Ordinance to further enhance its implementation effectiveness and public acceptability. Consideration should be given to the formulation of more pragmatic and achievable terms and conditions of the Environmental Permit (EP) and the use of more effective means to tackle the issues challenged by Judicial Review.

(34) To further enhance the creditability of our EIA mechanism, the Government is suggested setting up an E-Mark Scheme to acknowledge the projects approved under the EIA Process and granted with Environmental Permits. Similar to the previous Q-Mark Scheme for quality assurance of products widely used in Hong Kong, E-Mark signifies quality submissions and processing of EP applications under the EIA process. The Government may consider putting in place stringent training and accreditation requirements to raise the quality and performance standard of relevant parties including consultants conducting EIA studies; Environmental Team and Independent Environmental Checker under the Environmental Monitoring & Audit mechanism. This E-Mark Scheme would also serve as a public education tool to strengthen the confidence of public on our EIA system and further heighten its image in international arena.

Sustainable Development/Environmental Industry

(35) Given the Central Government's widely publicized determination to achieve improvement in environmental quality for the whole nation, there is a great demand for environmental services/ products/ technologies. We also understand that China has gradually released the requirements of working permits in China to facilitate Hong Kong people to work in our mother land. Hence, the development of a vibrant local environmental industry is definitely contributory to job creation and the economy. In order to facilitate the development of environmental industry, we have previously requested the Government to :

- set up an advisory body to recommend, plan and monitor the environmental industry development;
- establish platform to facilitate the transfer of advanced environmental technologies;
- develop a centre for the independent verification of environmental technologies
- facilitate the build up of brand names for environmental services/products

HKGSA would like to know the progress.

(36) It is the Government's tendering practice to utilize proven technology. However, many of the innovative technologies developed by Hong Kong owned enterprises may not have the chance to be widely used, and thus would be difficult to meet the Government's tender requirement. Innovation is essential for advancing the economy. HKGSA previously recommended the Government to consider adopting innovative environmental technologies/applications as the criteria in evaluating the tender submissions and would like to know the progress.

(37) HKGSA understands that the number of items on the Government procurement list with green specifications stays at 150 items of over 20 product and service categories for years (firstly published in 2015). HKGSA has previously requested the Government to further expand the number of items and update them regularly and consider including Carbon Footprint covering Life Cycle Analysis as one of the criteria in its green procurement policy. Furthermore, it seems that the Government Logistic Department does not refer to this procurement list in its website of their Forecast of Major Purchases in the next 24 Month. It is suggested that the Government departments should take the lead to refer to the list for the green purchase. HKGSA also previously recommended the Government engineering contracts to use certain percentage of environmental/green materials so as to create sufficient market potential to facilitate the healthy development of

local environmental industry. During the tender invitation for the engineering work, the Government is also suggested to invite those companies, which have made reference to ISO 20400 in procurement, to bid. Electronic tendering and submission of softcopy of quotations should be encouraged as far as practicable. HKGSA wishes to know the progress.

- (38) The Belt and Road Initiative is an important strategy for China's external and internal development, involving over sixty countries and emerging economies. There are numerous infrastructure projects in progress, including railway, highway and harbours, etc. Hong Kong engineering and environmental industry can provide the consulting service and be involved in the construction, operation management, meeting the needs of high-end service industry and promoting sustainable development and green lifestyle at the same time. We noted that the Government has conducted a series of government-to-government webinars to explore ways to capture business opportunities and collaboration initiatives in the context of the COVID-19 outbreak, one with Thailand in June and one with Indonesian in August. The focus was to discuss how the governments as economic partners spared no effort to combat the epidemic and to support each other to enhance resilience. The Government is suggested to work closely with the engineering and environmental industry in adopting the environmental protection standards of the advanced jurisdictions and then refer our expertise to the involved governments during the sharings.
- (39) HKGSA is pleased to know that the Smart City Blueprint for Hong Kong 2.0 would be announced this year to further promote smart city development. In response to the outbreak of COVID-19, HKGSA is of the view that the Blueprint should include a dashboard with an interactive map to enhance communication between the Government and the public, and the use of big data analytic of smart phones for healthcare development. We echoed with the view of the Multi-functional Smart Lampposts Technical Advisory Ad Hoc Committee that the Government should continue to take forward the pilot scheme to install multi-functional smart lampposts which are a key digital infrastructure for promoting smart city development and facilitating 5G mobile network implementation in Hong Kong. Apart from installation of LED lighting, meteorological sensors, air quality sensors, thermal detectors as well as radio-frequency identification tags, Geo-QR codes and Bluetooth beacons to identify a lamppost's geo-location, etc, the lampposts could incorporate the waste

dumping monitors with cameras to facilitate the possible municipal charging scheme in future, with due consideration of public concerns over privacy.

(40) No one will deny that new types of skill for developing new technologies including but not limited to AI, big data analytic, robot and among others for environmental protection and decarbonisation will be required. The Government should closely review the workforce required to make sure that Hong Kong could gain all possible benefits of the economic transformation due to environmental protection and sustainability. HKGSA welcomes the allocation of HK\$200 million to set up the Green Tech Fund (GTF) which aims to support the research and development and application of decarbonisation and green technologies. We understand that views have been collected from the stakeholders on the operation of the GTF and the details are to be finalized. The most challenging works are to get clearance from the Government departments and trial site for the R&D works. HKGSA suggests the Government to offer assistance in finding pilot trial sites and establish high-level coordination among relevant authorities to ensure that the pilot trials could be implemented as planned.

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