



Hong Kong Green Strategy Alliance

香港綠色策略聯盟

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19 September 2018

The Hon Mrs Carrie LAM CHENG Yuet-ngor, GBM, GBS

The Chief Executive

Hong Kong SAR Government

Dear

Suggestions to prominent environmental issues
for the 2018-19 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 2018-19 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 2018-2019 Policy Address

The Hong Kong Green Strategy Alliance (HKGSA) proposes the following for the Government's consideration:

General

- (1) HKGSA welcomes that the Government has implemented a series of holistic approaches through social mobilization, policy and legislation and related infrastructures/means to tackle imminent waste problem and air pollution, and to address climate change and biodiversity issues in Hong Kong. We are pleased to note that the 2013~2017 Progress Report for the Clean Air Plan was issued in 2017, through which we know how far we are from the targets. The Government is highly suggested to do the same, particularly for those plans which have already been released for a few years. Through the review exercise, if we fall short of the targets, the Government will check what actions have to be revised, and take necessary measures by injecting more resources to catch up. PDCA (plan-do-check-act) is a repetitive four-stage model for continuous improvement in environmental performance.
- (2) The extreme weather conditions like persistent hot temperature records have recently been logged in Asia, Europe and North America this year. Hong Kong is no exception. Hong Kong also experienced a heat wave of fifteen consecutive very hot days prevailing in the latter half of May. This serves as a timely reminder that climate change is happening. HKGSA welcomes that the Council for Sustainable Development is conducting 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. It is hoped that the recommendations will supplement the existing Hong Kong Climate Action Plan 2030+ to set up the target for mid-century by appropriately making reference to relevant local, national and other places' information on climate mitigation. The transition in the years ahead means an opportunity for Hong Kong to develop the necessary technologies and expertise for Hong Kong to cultivate a low carbon and resilient economy.
- (3) With the advanced progress of technologies (such as internet of things, wide application of mobile apps and drones, virtual reality, artificial intelligence, chatbots, etc.), there is really a need to reform outdated legislations with a view to

promoting the development of innovation and technology, which can help transform Hong Kong into a smart and sustainable city. HKGSA wishes to know the progress of this work. Only various policy bureaux have the determination to work together to phase out outdated legislations and formulate policies afresh, without which, the collaborative consumption or sharing of economies, which aims to decrease waste of both physical materials and resources, cannot be realized.

- (4) Undoubtedly, insufficient land for housing has become one of the major issues of great concern to Hong Kong. HKGSA supports that the near shore reclamation outside Victoria Harbour is one of land supply options as long as the Government will optimise construction options, and propose mitigation and compensation measures to lessen the impacts arising from reclamation on fishery industries nearby during the engineering design and environmental impact assessment stages in the future.

Solid Waste

- (5) The waste statistic data showed that the MSW disposal rate per capita has progressively increased from 1.27 kg/capita in 2011 to 1.41 kg/capita in 2016 with a yearly averaged increasing rate of 0.03 kg/capita. The difference from the record high of 1.43 kg/capita in 1993 is only 0.02 kg/capita. The rising trend of the figures is not a good feeling for those who have made effort. The relevant measures outlined in the Blueprint have to be revisited and revised as and when necessary.

To meet the ultimate target of 0.8kg/capita in 2022 as proposed in the abovementioned blueprint seems to be very challenging since there are only four years ahead. There is no doubt that the one of the high priority areas is the early implementation of the quantity-based Municipal Solid Waste (MSW) charging. HKGSA remains the view that charging is an effective tool to accelerate behavioral change. HKGSA's views are as follows:

(i) Charging Mechanism

The Government modified the implementation arrangements for municipal solid waste (MSW) charging to expand the use of pre-paid designated garbage bags in a way that about 80 per cent of MSW collected daily would be charged for through the purchase of pre-paid designated garbage bags, while the remaining 20 per cent of MSW would be subject to the gate-fee requirement. HKGSA supports the change since it is formulated

based on the outcomes after a series of stakeholder engagements. Anyhow, we are of the view that it is subject to review with more actual experience accumulated later.

The Government is suggested to prepare enforcement actions to address concerns of fly-tipping once MSW charging is implemented since the fly-tipping problem could be serious at the beginning of law implementation. Since fly-tippers can easily evade the Government's inspection by doing all their illegal dumping during weekends, holidays or at night. The government should have a proactive plan like for regular surveillance such as installation of GPS tracking devices on lorries collecting construction waste and cameras at illegal dumping hotspots.

Learning from the confusion in the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment on 1 August 2018, HKGSA is of the view that the general public may not be familiar with the MSW charging scheme. Knowing that there are a number of MSW charging trial projects for various sectors are being carried out, HKGSA recommends the Government to arrange more high profile events to share the experience learned, and continue to conduct more trials. Such trial programme should be able to raise citizens' awareness on MSW charging and bring about their earlier behavioural changes before full implementation. It would also help the Government to identify difficulties and be prepared for improvement, which will ensure the success of the MSW charging scheme.

(ii) Recycling

It is noticed that China will no longer accept imports of 24 categories of solid waste at the beginning of 2018. This has caused a great impact on the local recycling industry since a tight import quota as well as a high quality requirement would be imposed on overseas waste shipped to Mainland. In fact, majority of the recyclables collected in Hong Kong is exported to Mainland China for recycling. The Government has to consider the following approaches on how to support local recycling industry and sustain their business in Hong Kong.

The recyclables exported from Hong Kong to Mainland China is subject to the tight import restriction from overseas regions as well as a high quality

requirement (e.g. PET flakes and PET/ HDPE pellets), which puts Hong Kong into a disadvantaged position compared to overseas big waste exporters. To help local recyclers to face this challenge, in addition to the funding support by the current scope of Recycling Fund to help upgrade the operation of the local recycling industry to meet the high quality standard of the imported recyclables, HKGSA suggests the Government to consider devoting more resources to deal with the waste problems more proactively, such as expanding the scope of the Recycling Fund to allow a higher funding cap per enterprise so as to attract high end recycling operation, subsidize the rental cost of existing recyclables collection, etc. The Government may also consider to further support the Recycling Industry to invest on high end equipment and work with local recycling industry to process some of the lower valued waste types into products / raw materials by offering a higher percentage of subsidiary. Technology Voucher Scheme is an example that the Government is offering more than 50% of matching fund.

Furthermore, HGKSA is pleased to note that the LegCo Bills for the PRS on glass beverage containers and Waste Electrical and Electronic Equipment (WEEE) were approved. Under these PRSs, the Glass Management Contractors (GMCs) have been awarded to collect the glass containers in the territory and a new WEEE treatment facility (ALBA-IWS) has recently commissioned. HKGSA suggests the Government to do more on the publicity in a way that the public knows the free services provided by the GMCs on glass containers and ALBA-IWS on treating WEEE. Afterwards, the Government should continue to closely monitor the effectiveness of the implementation of PRS, and to enhance the enforcement, educate the public more and refine the regulation if necessary. We welcome that enforcement has been enhanced to fight against illegal import of hazardous electronic waste to avoid illegal import of WEEE. The effort should continue.

While the Government is striving for reducing waste disposal to the landfill, HKGSA suggests the Government to provide more subsidies/incentives for the waste collection / recycling / handling industries to create a more economic beneficial environment for the recycling business, hence boosting up recycling rate in Hong Kong.

- (6) While the first modern incinerator (Waste to Energy facility) has confirmed to proceed by adoption of the mass burn moving grate technology, HKGSA suggests the Government to explore the possibility for building more plants to alleviate the waste disposal problem, and also look into other emerging but less-proven technologies in the future when they have become more mature.
- (7) 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. HKGSA suggests the Government to keep the public informed of the progress against the target. If the target cannot be met, the Government should do more to meet the target. Apart from the incineration facilities and extension of landfills, the Organic Resources Recovery Centre (ORRC) is also an integral part of the waste treatment strategy but again seriously delayed in implementation. The Government should accelerate the development of other ORRCs in Sha Ling, Shek Kong and other places in Hong Kong. The technologies to be adopted at Siu Ho Wan and Sha Ling should be reviewed according to the market trends and Hong Kong's actual conditions after more experiences are gained. Regarding the other ORRCs as proposed in the plan, HKGSA suggests the Government to conduct 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. HKGSA also supports the recently launched Food Wise Eateries Scheme which further engages the Food and Beverage (F&B) Sector to joint hands with the community in reducing food waste. We suggest the Government should conduct more awareness promotion so that both the F&B Sector as well as general public would know the benefits on this scheme. Also 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, collection and recycling.
- (8) The shopping behavior of Hong Kong citizens has been shifting to online purchase which leads to an increasing waste problem due to excessive packaging materials and quick disposal of the products. The Government is suggested to recognize the issue and prepare a policy framework to tackle it.

- (9) The Plastic Shopping Bag (PSB) Levy Scheme has come to full implementation since 2015, the disposal rate of PSB to landfills have been successfully reduced. However, we notice that there is a rising trend of some of the retail shops which do not charge on the PSB on non-exempted products. Therefore, HKGSA strongly suggests the Government to enhance the enforcement actions on regulating the free distribution of PSB issue.
- (10) 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. The Government is suggested to examine the possibility and effectiveness on raising recycling rate by imposing compulsory deposit scheme to plastic beverage bottles when the PRS for plastic beverage bottle is being formulated. The Government should also actively consider PRS on other types of wastes, such as vehicle tyres, packaging materials, etc.
- (11) It is reported that disposable plastic waste is having an impact on our ability to enjoy our public beaches and the ocean. HKGSA suggests 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 sometimes full of rubbish. HKSGA urges 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.
- (12) HKGSA understands from the relevant trades that as per the requirements of Environmental Permits, project proponents are regularly required to submit the hard copies of the EM&A reports. Since the reports contain a lot of information and project proponents need to use a lot of papers, the Government is respectfully requested to review the necessity of hardcopies since the soft copy should also serve the purpose when we talk about smart environment.

Air Quality

- (13) 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 also understands that the Government had commenced the review of AQOs in mid-2016 and planned to report on the findings and recommendations to the Advisory Council on the Environment and the Environmental Affairs Panel of the LegCo by mid-2018. As such, HKGSA is of the view that the review results need to be appropriate and pragmatic through implementation of practical air quality improvement measures on balance of economic and social implications. However, the proposed AQOs have not yet been released. The Government is urged to disclose the new AQO figures to the public since it is supposed to be implemented in 2019.

- (14) In order to combat the worsening haze problem, the earlier Air Pollution Action Plan released in September 2013 has helped China to make significant improvements to air quality by setting PM_{2.5} targets for key regions, requiring significant reductions between 2013 and 2017 of 15% in the Pearl River Delta, and of 33% in Beijing. Thanks to the measures taken to ban people in surrounding areas from burning coal for heat, the targets have been achieved. The new 2018-2020 Three-year Action Plan as the second phase of the original air pollution action plan has been in place, mandating falls of at least 18% in PM_{2.5} levels on a 2015 baseline. With the concerted efforts made by China and Hong Kong, HKGSA is pleased to note that the long-term downward trend of pollutant levels was evident despite the short-term fluctuations.. Similar to what China is doing, HKGSA suggests the Government to adopt the mobile app to disclose current ambient pollutant data, air quality index and its forecast environmental forecast and emission data from local power plants so that the public is aware of the current environmental situations. In Hong Kong, the Hong Kong Observatory is doing their good job to provide meteorological information and weather forecast through the mobile app.

Through the Cleaner Production Partnership Programme, Hong Kong-owned factories in Guangdong Province are encouraged to adopt cleaner production technologies, thereby reducing their impacts to the environment. The Government is suggested to provide more platforms for stakeholders to share their successful experience to further enable the technology transfer.

- (15) HKGSA is pleased to learn that the pilot program of installing the floating PV solar system at Shek Pik Reservoir and Plover Cove Reservoir are successful, which have provided some useful reference data for the future implementation of

large-scale FPV farms on reservoirs in Hong Kong. The Government is suggested to speed up the implementation process. In response to our suggestion made in our paper last year, the Government plans to pilot a multi-purpose smart lamp post combining mobile network signal transmission, video surveillance, information dissemination, PM2.5 intelligent perception, electric car charging pile and other functions in one next year. HKGSA is pleased to wait for the encouraging result.

- (16) It is noted that there are diesel engine-driven barge cranes for loading and unloading at mid-stream sites and public cargo working areas, etc, which are also polluting. HKGSA suggests extending the overage of the existing Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation to include these polluting cranes in a way that their emissions are under control. To further improve local air quality, the Government can consider providing owners with incentives to replace their engine driven NRMMs with electric powered type, or retrofit the NRMMs with advanced after-treatment systems.
- (17) 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 however, did not implement it at the moment. We suggest the Government to incorporate the experience of ERP from Singapore and the UK into the ERP proposed for Hong Kong. It is believed that ERP could control the use of road while incentivizing the application of EVs at a specific district like the Central to, avoiding and traffic congestion and improving road side air quality.
- (18) The Government should provide economic incentive to commercial vehicle owners to install energy efficient / emission reduction devices, e.g. automatic engine idle stop system, hybrid electric / pure electric drive system, etc., by setting up a permanent Green Transport Fund, instead of the current Pilot Green Transport Fund. HKGSA is pleased to learn that the first registration tax for EVs would continue to be waived until March 2021 and a new “One-for-One Replacement Scheme has been launched to encourage the replacement of private cars. Similarly, HKGSA suggests the Government to extend the One-for-One Replacement Scheme on public / commercial vehicles as an incentive for the industry to switch to EVs as well.
- (19) Encouragement to replace the fossil fuel based vehicle with electric vehicle is a right track to improve the road side air quality as well as reducing carbon emission.

Although there are over 10,000 EVs in Hong Kong, most of them are private EVs but not commercial vehicles. The Government should implement more initiatives to facilitate the switching of public / commercial vehicles to electric vehicles such as the issuance of electric taxi / public mini-bus / bus licence. It is learnt that there have already been some 14,000 electric buses on the streets of Shenzhen in 2017, with only a few hundred diesel-powered buses to be phased out, making fleet of buses 100% electric. In view that the weather condition between Shenzhen and Hong Kong is quite similar, the Government should learn why they can do it while Hong Kong could not.

(20) To further promote wider use of EVs, the Government should boost the installation of more charging stations and further promote the use of EVs by providing economic incentives, such as free / discounted parking for EVs. The Government should also facilitate local development of critical EV components and drive systems, such as setting up specific themes in local R&D centres. The Government is suggested to review the feasibility of setting up public-private partnership to accelerate the pace of installing more EV chargers in both new and existing buildings. In view of wider use of EVs in Hong Kong, end-of-life EVs and the associated retired components would be a future waste concern. EVs batteries should be reused since retired since EV batteries still have 70% to 80% of electricity storage capacity and their potential for second-life applications is immense. 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. Taking an example from Japan, a vehicle manufacturer is running a pilot programme to use recycled old EV batteries to power street lights.

(21) There is a regulation to mandate the use of low sulphur fuel for marine vessels berthing at Hong Kong. To further reduce SO₂ emissions from the navigation sector, HKGSA supports the Government's proposal to mandate marine vessels to use compliant fuels within Hong Kong waters. As for the on-shore power supply (OPS), while HKGSA is supportive of the Government's recommendation to keep a close monitoring on developments internationally on installation of OPS-capable systems in cruises, HKGSA suggests the Government to explore the feasibility of installing OPS systems in container ships berthing at Kwai Chung Container Terminal. We are also of the view that the Government should

explore the feasibility of application of electric vessels and LNG or CNG vessels on Hong Kong waters.

- (22) For the future fuel mix, HKGSA supports the increase in use of natural gas for local power generation to improve regional air quality and at the same time to reduce greenhouse gas emission to meet the 2030 carbon reduction target. As evidenced by the attack of the severe typhoon Hato in 2017, Hong Kong still maintained a high reliable electricity supply thanks to local power generation. HKGSA supports diversifying the sources of natural gas supply by constructing a local liquefied natural gas (LNG) terminal with options including the floating type (i.e. floating storage and regasification unit (FSRU) without being overly dependent on a single source of gas supply to improve fuel security and to enhance bargaining power in the international market for gas supplies.

Climate Change and Energy Efficiency

- (23) Under the Paris Agreement on Climate Change as the global aspiration (COP21) in end 2015, 195 nations set path to keep a global temperature rise this century well below 2°C above pre-industrial levels and drive efforts to limit the temperature increase to 1.5°C. Every individual has a role to play in combating climate change. HKGSA welcomes that the Government has set up a cross-departmental ministerial-level structure and engaged the business sector in developing strategies and targets with an aim to develop new carbon intensity reduction and associated targets for 2030. HKSGA understands that as the time of writing this document, , there is only one company in Hong Kong to set a target under the Science Based Targets Initiative showing its plan and its endeavour to decarbonize to keep the global temperature increase below 2°C. HKGSA suggests the Government to encourage more key companies to do the same in future.
- (24) Currently 90% of electricity is consumed in our buildings, buildings energy efficiency is important in Hong Kong. This accounts for around 62% of Hong Kong s carbon emissions in 2015. To achieve Paris Agreement targets of reducing carbon emissions, it is widely understood that energy saving measures are a cost-effective approach for achieving a significant amount of carbon reductions. With this in mind, it is preferable to install the energy saving equipment at the buildings when they are constructed. HKGSA supports provision of financial incentives in terms of GFA concession for new buildings. HKGSA also supports the profits tax deduction for any investments in the installation of energy efficient equipment. HKGSA also welcomes the updated

requirements of IAQ in a way that the indoor temperature is no longer a criteria, making that there is no conflict between good IAQ and energy saving.

- (25) The Government published the Energy Saving Plan for Hong Kong's Built Environment 2015~2025+. HKGSA welcomes that to achieve the new energy intensity reduction target, the Government has taken key actions to drive energy saving through a combination of economic, regulatory, educational and social means. 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. Some of them even contain shopping mall. HKGSA suggests the Government to group them into appropriate categories for the sake of apple to apple comparison. Incentives could be provided for those office buildings with the best performance.
- (26) In many overseas countries, the installation of photovoltaic panels on roof top of residential and commercial buildings is an effective way to generate renewable energy as the cost of PV panels has been substantially reduced. The Government should carry out a review on the current constraints limiting wider adoption of PV systems in buildings, the practices in overseas countries and formulate improvement and incentive programmes to encourage installation as part of the climate change combat strategy. With the details of the feed-in tariff (FiT) scheme in place, the result of the review should be made ready to the public so that the community can know how to wisely install renewable energy (RE) facilities in their premises. Also the eligible technologies that can apply for FiT can be expanded from only solar and wind energy to other means of renewable energy, such as electricity generated from food waste conversion, biodiesel, etc.
- (27) HKGSA is pleased to note that the Government has approved the development plans of two companies to install gas-fired units to replace coal units. The overall gas-fired generation of the power companies will then increase to the amount helping to achieve the carbon intensity reduction target for 2030 to combat climate change. To address the concern of the public over the inevitable increase in tariffs arising from the change of fuel mix, HKGSA supports the Government to alleviate the impact of tariff increases on the residential sector. The Government should subsidize those underprivileged if financial situations allow.

- (28) Hong Kong, as a developed city, should continue to increase the portion of renewable energy (RE) in fuel mix. HKGSA supports both the commercial scale as well as distributed development of RE to enrich the knowledge of relevant professionals in this aspect on the condition that it would not have a significant impact on tariff. HKGSA is disappointed to note that the large scale off-shore wind farm projects were not found in the Development Plan of two power companies. It is hoped that these projects could be considered in the next Development Plan. On the other hand, feed in tariff scheme as an incentive under the new Scheme of Control Agreement (SCA) will be implemented. It is good that if some organizations wish to achieve carbon neutrality, they should have an option to pay higher price than normal tariff to purchase such green power in terms of RE certificates. With the increasing use of PV panels for power generation, HKGSA is concerned that the retired PV panels after the end of their life spans would become another sources of solid waste, the Government is requested to study how to recycle their useable materials.
- (29) The Government should implement energy efficiency installations in ALL government buildings, and encourage commercial buildings to adopt energy efficiency installations, through their own resources or through energy saving performance contracting arrangement. The Government may consider setting up an Environmental Installations Loan Guarantee Fund to support Hong Kong's enterprises for the installation of energy efficient / cleaner production devices.
- (30) 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. HKGSA suggests the Government to review with the oil companies and see whether they could sell the biodiesel in the whole territory of Hong Kong. The Government should also take a lead to use biodiesel in their vehicle fleet and coordinate with bus operators to see if they would be interested in using biodiesel.
- (31) Under the Scheme of Control Agreement, CLP will have HKD \$100 million per year for their Eco-Building Fund while HK Electric will provide EC's HKD \$25 million per year for their Smart Power Fund. HKGSA welcomes these funds to support energy efficiency. The Government is suggested to finalise the implementation details so that the engineering and related industries could play a role in transforming Hong Kong into a low carbon city.

Biodiversity Strategy

(32) HKGSA welcomes the release of the Biodiversity Strategy and Action Plan in a social system where humans and nature could co-exist. This provides key actions to address environmental problems through the integrated approach of environment, economy and society, with which all the stakeholders learn more on how to conserve flora and fauna, marine and endangered species based on principles of the Convention on Biological Diversity while taking into account local needs and priorities. HKGSA looks forward to the update of the action plan.

(33) HKGSA suggests the Government to conduct systematic monitoring of the state and progress of biodiversity conservation in Hong Kong. The project proponents under EIAO proposing any development to be carried out within or in proximity to ecologically sensitive areas should carefully scrutinise potential ecological impacts of designated project at an early or planning stage, make necessary adjustments to avoid adversely affecting or minimize those impacts on ecologically important sites and minimize other impacts on the natural environment. Also, the project proponents should take the responsibility to enhance the biodiversity during construction and operation phase of the project. HKGSA supports the implementation of enhancement measurement in the form of an independent fund to support initiatives contributing to the benefits of the marine environment and biodiversity. Project proponents under EIAO or interested parties can contribute to the fund.

Fresh Water Supply

(34) Fresh water is crucial to humans. It is not only used for drinking, but also for washing and many other important activities. It is expected that fresh water would become scarce in the future partly due to climate change. Hong Kong experienced a threat of drought since there was no rain in the first half of the year. Given that there is over reliance on imported water, HKGSA suggests the Government to elevate the current hierarchy of total water management strategy to a Water Policy as a driver to ensure the safety, reliability and security of water supply in Hong Kong. However HKGSA is disappointed to see no significant progress on this aspect.

Marine Water Quality in Hong Kong

(35) The successful implementation of Harbour Area Treatment Scheme (HATS) Stage 1 in 2001 and Stage 2A in 2015 has significantly improved water quality in

Victoria Harbour, which is well evidenced in the annual Cross Harbour Race since its resumption in 2011. While HKGSA supports the Government's view that the implementation of HATS Stage 2B would be kept under review taking into account the water quality situation and the latest technological development in biological treatment, the Government is suggested to enhance the proposed work for further improving the performance of the stormwater drainage systems such as dry weather flow interceptors in Tuen Wan and West Kowloon with growing populations along their coastal areas.

Review and Development of Water Quality Objectives (WQO)

(36) 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 eight 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 suggests the Government to speed up the process.

Sustainable Development/Environmental Industry

(37) 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, the Government should :

- 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 is pleased to offer assistance on this aspect.

(38) 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 and our Octopus card was a good example to demonstrate we lag behind as compared with WeChat Pay. HKGSA recommends the Government to consider adopting innovative environmental technologies/applications as the criteria in evaluating the tender submissions, so that more locally developed innovative technologies/applications can be considered as an incentive measure. HKGSA is ready to offer innovative ideas for environmental sustainability.

(39) We are pleased to note that many Hong Kong owned enterprises and overseas renowned companies actively took part in the Eco-Expo Asia 2017 which is one of annual great environmental events to showcase their successful technologies and experiences. HKGSA is pleased to note that the senior officials of the Government had visited the booths to show the support last year. However, the participation rate from the public was not encouraging. The Government is suggested to review and see how to promote the event. Furthermore, all the related environmental protection and engineering related government officials should be encouraged to join the coming Eco-Expo Asia 2018 in order to keep abreast of the advanced technologies being applied to the environmental industry in Hong Kong and overseas.

(40) 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. The Government should further expand the number of items and should consider including Carbon Footprint covering Life Cycle Analysis as one of the criteria in its green procurement policy. HKGSA recommends the Government engineering contracts should use certain percentage of environmental/green materials so as to create sufficient market potential to facilitate the healthy development of local environmental industry. The 12th Sustainable Development Goals about Responsible Consumption and Production is to ensure sustainable consumption and production patterns. Following our paper about sustainable procurement made last year, HKGSA is pleased to note that there are some companies participating in our Sustainable Procurement Charter as a means to develop, document and implement Sustainable Procurement by making reference to ISO 20400. This also helps reduce the burden of waste disposed of at our landfill sites. The Government is suggested to follow the guideline in procurement as a role model for the public. Similarly, during the

tender invitation for the engineering work, the Government is suggested to invite those companies, which have made reference to ISO 20400 in procurement, to bid.

(41) 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. Similarly, sustainable development of a city cluster in the Guangdong-Hong Kong-Macau Greater Bay Area is also important to Hong Kong. Hong Kong engineering industry can provide the consulting service and be involved in the construction, operation management, meeting the needs of high-end service industry and promoting the green development and green lifestyle at the same time. The Government is suggested to work closely with the engineering and environmental industry in adopting the standards of the advanced jurisdictions and then refer our expertise to the involved cities and countries. With the Hong Kong-Zhuhai-Macau Bridge to be in operation in later of 2018, the Guangdong-Hong Kong-Macao Greater Bay Area Development is a good area for Hong Kong youngsters to know better about Mainland China and innovate their green ideas as career development, HKGSA suggests setting up a platform for citizens from both Hong Kong and China to facilitate the experience exchange, for example to get to know the differences in environmental legislations of both regions and among others.

(42) The Smart City Blueprint for Hong Kong (Blueprint), released in December 2017, has made recommendations for development in respect of six major areas, namely, smart mobility, smart living, smart environment, smart people, smart government and smart economy for transforming Hong Kong into a smart city. HKGSA is supportive of the approach. We are of the view that these six areas should be integrated to each other to exhibit synergy effect. This requires excellent coordination work across Government's various Bureaus/Departments to make it happen. However, regarding smart environment, the strategy and initiatives such as Climate Change Action Plan 2030+ are nothing new to us, except pollution monitoring. There is no key timeline to put the initiative of pollution monitoring in practice. Apart from this, the Government is suggested to advise the public of the progress of the Blueprint. It is believed that Hong Kong citizens are ready to walk the talk by actively participating in the program.

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September 2018