Hong Kong Green Strategy Alliance
香港綠色策略聯盟
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5 November 2015

The Hon C Y Leung, GBM, GBS, JP
The Chief Executive
Hong Kong SAR Government

Dear C. Y.,

Suggestions to prominent environmental issues for the 2016 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 2016 Policy Address. Our detailed submission is attached as Appendix A.

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., members of HKGSA 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 2788 5647 / 9482 3227 (irkennywong@gmail.com).

Yours sincerely,

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

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

Encl.

Recommendations from the Hong Kong Green Strategy Alliance to 2016 Policy Address

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

Solid Waste

(1) HKGSA strongly supports the implementation of a series of holistic approaches through social mobilization, policy and legislation and recycling infrastructures to tackle the imminent waste problem in Hong Kong as stated in the Hong Kong Blueprint for Sustainable Use of Resources 2013-2022. HKGSA is also pleased to note the progress of each approach.

(2) The recent waste statistic data showed that the MSW disposal rate per capita has increased from 1.27kg/capita in 2011 to 1.35kg/capita in 2014. To meet the ultimate target of 0.8kg/capita in 2022 as proposed in the abovementioned blueprint seems to be very challenging. As such, one of the high priority areas is the early implementation of the quantity-based waste charging. HKGSA opines that charging is an effective tool to accelerate behavioral change. HKGSA's views are as follows:

(i) Charging Mechanism

The public engagement on how to implement quantity-based MSW charging in Hong Kong conducted by the Council for Sustainable Development (SDC) ended in January 2014. HKGSA welcomes the recommendations made by the SDC. HKGSA is supportive of the Government to mandate proper wrapping of MSW using pre-paid designated garbage bags for the disposal of domestic waste, provide for an alternative, interim charging mechanism for MSW during the transitional period, and enable the charging of an MSW gate fee at landfills and transfer stations for commercial and industrial waste. Similarly, HKGSA supports the Government to prepare for the establishment of a platform for stakeholders to be engaged in the development of MSW charging on an on-going basis to review how to implement MSW charging for various buildings. We also support the government's injection of fund into the Environment and Conversion Fund (ECF) to fund application for conducting trial of MSW charging in various types of premises not just to work out suitable methodologies in various types of operation, but also to

let the waste generators to adapt to the charging mechanism sooner. Since both the legislation and engagement processes would take time, the Government is urged to look for ways to speed up the related process so that the MSW charging could be put in place soonest possible.

Anyhow, the Government is suggested to prepare enforcement actions to address concerns of fly-tipping once MSW charging is implemented.

(ii) Recycling

HKGSA is pleased to note that the $1B Recycling Fund has been finally set up in order to allow recyclers in need to develop into a cost effective scale with potential technology enhancement to divert waste from landfills, improve overall recycling yield and increase the value of recycled products. The government should regard this Recycling Fund as the initial step of a long term commitment and should replenish the fund on an as-needed basis. It is expected the cultivation of local recycling industry could also provide job opportunities and nourish our environmental industry.

HKGSA is of the view the inadequate recycling and collection systems in Hong Kong may create a sense of distrust that the recycled materials would be finally disposed of in landfills. For instance, it is found that the ratio of the recycling bins in terms of their size and quantity mismatches with the large amount of people living in high rise buildings. Similarly, the ratio of rubbish bins to recycling bins is always found much higher in public beaches, which does not help to build trust for the Government's efforts to reduce waste production. All of these issues may explain why the waste disposal rate per capita was consistently high over the past years. The Government is urged to look for ways to reverse the mindsets/mistrust of people for improving our comparatively lower recycling rate.

(3) HKGSA is also pleased to know that the comprehensive phase of Producer Responsibility Scheme (PRS) for plastic shopping bags has been fully implemented in April 2015. Furthermore, a LegCo Bill was introduced in July 2015 to include of product containers in the PRS while a new WEEE treatment facility would be commissioned in 2017. HKGSA suggests the Government 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.

(4) HKGSA welcomes the operation of two Community Green Stations (CGSs) in Shatin and Eastern and the construction of three other CGSs in Yuen Long, Kwun Tong and Shum Sui Po respectively. However, the pace on the setting up of the community green stations in other districts (i.e. recyclables collection centres which are reasonably accessible) should be accelerated, and the Government needs to provide sufficient land and berthing facilities to facilitate recyclers' operation. HKGSA suggests the Government to do more publicity to promote the objectives of CGS's operated by non-profit-making organisations to enhance environmental education and help collect different types of recyclables in the local community. The Government should closely monitor the performance of these CGSs.

(5) HKGSA supports reviewing of the charging level for the disposal of construction and demolition waste, so as to encourage further increase of recycling rate. This should be studied together with the proposed charging scheme for MSW under C&I category. The charge for MSW and construction waste should be comparable to each other, if not the same.

(6) On waste treatment facilities, using thermal (Waste to Energy) technologies which can substantially reduce the volume of waste is necessary for HK. HKGSA is supportive of the Government's adoption of the mass burn moving grate technology, which is proven and has been widely used around the world, as the first waste burning incineration plant. However, HKGSA suggests that other emerging but less-proven technologies may be considered in the future when they have become more mature.

(7) As a possible way to reduce the NIMBY (Not In My Back Yard) effect for the installation of incinerator, HKGSA suggests the Government should consider providing direct betterment/convenience to the affected communities adjacent to the facilities. Seeing that the testing and commissioning of the sludge treatment facilities (STF) is on the way, HKGSA looks forward to the official release of the STF along with its education centre, exhibition area, lecture theatre and visitors' gallery, an indoor spa and outdoor foot bath to the public. Tuen Mun residents should be offered priority to visit the facilities.

(8) 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". Food Wise 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 waste treatment facility (OWTF) is also an integral part of the waste treatment strategy but again seriously delayed in implementation. HKGSA recommends that the construction work of Siu Ho Wan OWT facility be expedited and that the Government should accelerate the development of organic waste treatment plants in Sha Ling 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 OWTFs 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. The Government should also expand the Food Waste Recycling Programme for Housing Estates by devoting more funding to ECF so that more residential estates can conduct on-site collection and treatment of food waste. HKGSA also supports the recently launched "Food Wise Eateries Scheme" which further engages the Food and Beverage Sector to joint hands with the community in reducing food waste.

(9) To cultivate behavioral changes, the government should devote more funding to support specific environmental education / awareness programmes, both on community level and specific C&I sectors. Following the recent announcement from the World Health Organization (WHO) which listed cancer-causing food such as bacon, ham, red meat, sausage, cold cuts, other processed meat and given the fact that the carbon footprint of producing vegetable is much less than that for meat, the Government should take this opportunity to promote "more vegetable and less meat" approach to further suppress food waste generation while at the same time it is beneficial to the public health.

Air Quality

(10) 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 as outlined in the Clean Air Plan for Hong Kong published in 2013. HKGSA welcomes the progress of each approach.

(11) In order to combat the worsening haze problem, the Central Government has enacted The Action Plan for Air Pollution Prevention and Control in 2013. The Plan proposes to improve overall air quality across the nation through five years through the implementation of a series of mitigation measures, reduce heavy pollution by a large margin and make obvious improvement of air quality in Beijing-Tianjin-Hebei Province, the Yangtze River Delta and the Pearl River Delta. By 2017, the level of PM2.5 in cities above prefecture level will drop by at least 10% against 2012 level and the days with good air quality will increase year on year. According to Clean Air Action Plan in China (大氣十條), the level of PM2.5 in Beijing-Tianjin-Hebei Province, the Yangtze River Delta and the Pearl River Delta will cut by 25%, 20% and 15% respectively and the annual concentration of PM2.5 in Beijing cannot exceed 60μg /m3. With the concerted efforts made by China and Hong Kong, HKGSA is pleased to note that the air quality in Pearl River Delta is improving. HKGSA also welcomes the Government to extend the Cleaner Production Partnership Programme to until 31 March 2020 with a view to encouraging Hong Kong-owned factories in Guangdong Province and Hong Kong 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.

(12) HKGSA supports the Government to take more innovative approaches to integrate multi-features serving functions into a single object. For example, a solar-powered street lamp post in China is said to incorporate ambient PM2.5 on-line analyzer, WiFi system and Charger for EVs; App's are widely adopted for displaying on-line ambient pollutants levels recorded at various air quality monitoring stations and emission levels from stationary sources. To combat air pollution, the Government can consider taking advanced technologies into account when we aim to increase the transparency for the interested stakeholders.

(13) Following on the Government's bold initiative to phase out pre-Euro IV diesel vehicles, there are still a large number of diesel powered non-road mobile machinery (NRMM) such as generators, excavators, etc., being used by construction sites. HKGSA is pleased to learn that the emissions from these diesel powered NRMMs are controlled through the relevant regulation on 1 June 2015. Under the Regulation, NRMMs, except those exempted, are required to comply with the prescribed emission standards. The Government is suggested to review the mechanism to ensure that approved or exempted NRMM with proper labels are not polluting. The Government may also consider allowing retrofit of effective after-treatment device to the sub-standard NRMMs to meet the new emission standard, so as to allow extension of the service life of the NRMMs while improving the emission quality of this type of equipment.

(14) The Government should provide economic incentive to commercial vehicle owners for installing 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.

(15) Encouragement to replace the fossil fuel based vehicle with electric vehicle (EV) is a right track to improve the road side air quality as well as reduce carbon emission. There are only about 2,800 EVs in Hong Kong, constituting an insignificant percentage in the total vehicles in Hong Kong. The Government should implement more initiatives to facilitate the switching of public vehicles to electric vehicles such as the issuance of electric taxi/public mini-bus license.

(16) To further promote wider use of EVs, the Government should motivate 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 the 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.

(17) The Government should step up the effort of reducing NOx emissions from Euro III or below franchised buses.

(18) HKGSA welcomes the regulation to mandate the use of low sulphur fuel for marine vessels berthing at Hong Kong. As far the on-shore power supply (OPS) is concerned, HKGSA is supportive of the Government's recommendation to keep a close monitoring on developments internationally on installation of OPS-capable systems in cruises for the time being. The Government is suggested to work with port cities in PRD region to establish a regional agreement on the wide use of low sulphur fuel for marine vessels.

(19) 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. HKGSA supports the diversity in sources of natural gas supply by constructing a local LNG terminal including the floating type without being overly dependent on a single source of gas supply.

Climate Change and Energy Efficiency

(20) HKSGA welcomes the launching of the Government's Climate Change 2015 report, which is a timely document for the public before the COP21 to be held in December in Paris. The report helps communicate the risks that arise from climate change and provide strategic actions for the Government and business sectors. It also serves as a reminder that every people have a role to play to combat climate change.

(21) The Government published the Energy Saving Plan for Hong Kong's Built Environment 2015~2025+ in May 2015. To achieve the new energy intensity reduction target, the Government will take key actions to drive energy saving through a combination of economic, regulatory, educational and social means. HKGSA is supportive of all the actions taken to reduce greenhouse gas emissions, and to accelerate adoption of green building technologies in the private sector.

(22) 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. Hong Kong 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.

(23) Carbon trading is an effective financial tool to facilitate and accelerate the investment in low carbon technology as part of the climate change combat plan. In 2013, seven pilot carbon trading programmes were established in various parts of China mainland to test the different components of the carbon trading platform with an aim to roll out a nationwide programme in 2016. Hong Kong Government will need to monitor the situation and formulate a strategy to leverage on these programmes to promote GHG emission reduction in Hong Kong and identify opportunities for Hong Kong companies to participate in this new initiative.

(24) On the review of emission allowances for the two power companies in Hong Kong, HKSGA welcomes that an additional 10 per cent of nuclear electricity will be imported from the Daya Bay Nuclear Power Station (DBNPS) beyond 2018 in addition to the 70 per cent of the nuclear electricity output from DBNPS. As such, the Government should continue to examine whether the fuel mix ratio without increase of electricity generation through nuclear energy is sufficient to meet the future expectation on reduction of local air pollution and carbon emissions.

(25) The Government should encourage more local renewable energy (RE) installations, such as by providing incentive to the community for wider adaptation of renewable energy measures.

(26) 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 set up an Environmental Installations Loan Guarantee Fund to support Hong Kong's enterprises for the installation of energy efficient / cleaner production devices.

(27) HKGSA supports the Government's proposal to strengthen the regulation of edible fats and oils and the recycling of "waste cooking oils" through legislative amendments with the three-month public consultation which ended in October 2015. Given that treatment facilities in Hong Kong can process multiple feedstocks including cooking oil and grease trap oil, the Government should promote the wide use of bio-energy including bio-diesel in land and sea transports to improve air quality of Hong Kong. As a first step, the Government should facilitate the use of bio-energy in all government vehicles and ships. If positive

results are obtained from the trial in government fleet, the Government should provide direct subsidy to help local vehicles & ships to upgrade their engine systems so as to support the use of bio-fuel at appropriate blends, e.g. B5-20 to offset greenhouse gas emissions.

(28) Hong Kong, as a developed city, should continue to increase the portion of RE in its fuel mix. HKGSA supports the commercial scale development of various forms of RE on top of that arising from "Waste to Energy", on the condition that it would not have a significant impact on tariff. We also need to enrich the knowledge of relevant professionals in this aspect. If companies wish to achieve carbon neutral, they could pay a higher but affordable price to purchase such green power.

Biodiversity Strategy and Action Plan

(29) HKGSA looks forward to the release of the Biodiversity Strategy and Action Plan in a social system where humans and nature could 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. To increase the environmental awareness on protecting our natural resources, HKGSA suggests the Government to work closely with the NGOs to train more eco-leaders and promote the related green knowledge through eco-tours. Apart from this, HKGSA suggests the Government to develop more eco-heritage routes with education panels en-route on Hong Kong, which more people in Hong Kong and tourists could enjoy.

Fresh Water Supply

(30) 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. Considering the recent lead water issue in Hong Kong and 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. With this in mind, we suggest the Government to:-

- Review the water tariff structure - Hong Kong's water system is heavily subsidised by the government. As a result, waste bills in Hong Kong are among the lowest while our citizens are the higher water consumers in the developed cities. HKGSA suggests the Government to strike a balance between affordability and sustainability so that more people would care about the use of precious water.
- Step up the promotion of water conservation - the Government can consider introducing incentives (e.g. provision of free water saving devices for the public) to reduce water consumption. The Government should also take a lead to set water saving targets for their premises and share the relevant experience with the public.
- Consider other water source - HKGSA welcomes the Government to conduct an EIA study on Desalination Plant at Tseung Kwan O" using reverse osmosis under location conditions for producing potable water complying with World Health Organisation guidelines for drinking water quality.
- Cut the significant amount of lost water due to leakage - HKGSA supports the Government to continue to implement comprehensive pressure management to optimize water mains pressure so as to reduce leakage, and to enhance leakage detection and monitoring by adoption of new technology.
- Collect more of our rainfall and recycle waste water for planting and other purposes – HKGSA suggests the Government to conduct a trial on establishing a comprehensive water collection and recycling system in a new developed area to collect more experience.

Water Quality at Victoria Harbour

(31) Given that cleaning up Victoria Harbour important for public health, long-term leisure and amenity value of the coastal areas, the Government has been taking steps to protect this unique marine environment. The implementation of Harbour Area Treatment Scheme (HATS) Stage 1 in 2001 and Stage 2A in 2015 has greatly improved water quality in Victoria Harbour, which is well evidenced in the annual Cross Harbour Race since its resumption in 2011. The Government has completed a review of the implementation of HATS Stage 2B which is to provide for an underground biological treatment facility. The review results show that the existing facilities are adequate to handle the waste water in compliance with the Water Quality Objectives. 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.

Review and Development of Water Quality Objectives (WQO)

(32) 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 in 2010. The second engagement on any proposed changes has not yet been kicked off. HKGSA suggests the Government to speed up the process.

Sustainable Development/Environmental Industry

(33) 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. Similar situation also exists in the developing countries such as ASEAN. 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
- set up a new professional system to cater for those scientists in the environmental sectors to acquire appropriate professional recognitions/status. This can help transform Hong Kong into a centre of excellence in providing professional environmental services. This can also attract more talents to the environmental sectors.

(34) 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. 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.

(35) The Government should further improve its green procurement policy, and should consider include Carbon Footprint covering Life Cycle Analysis as one of the criteria. 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.

~END~

November 2015