



**The Canadian
Chamber of Commerce
in Hong Kong**

La Chambre de Commerce Canadienne à Hong Kong
香港加拿大商會

March 12th, 2015

Professor Anthony Cheung Bing-leung, GBS, JP
Secretary for Transport and Housing
Transport and Housing Bureau
The Government of the Hong Kong Special Administrative Region
20-22/F, East Wing, Central Government Offices
2 Tim Mei Avenue, Tamar
Hong Kong
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Dear Professor Cheung,

The Sustainable Development Committee (SDC) of the Canadian Chamber of Commerce in Hong Kong (CCCHK) has provided leadership in advocating the business case for sustainability in Hong Kong for close to two decades. Our members are committed to actively promoting a sustainable future for Hong Kong – this includes taking care of our environment and our people, and managing our day-to-day business sustainably. CCCHK considers air quality to be a significant issue of concern with respect to Hong Kong's sustainability and its long-term future as a world-class, international centre of business and leading gateway for the markets on the Mainland.

CCCHK supports the initiatives outlined in the Clean Air Plan issued by the HKSAR Government, with the Transport and Housing Bureau as a key contributor. CCCHK submitted a position paper to Mr Wong Kam-sing, JP, Secretary for the Environment, The Government of the HKSAR on February 14, 2014 to highlight the current issues and status of the persistent air quality problems in Hong Kong. We subsequently met with Ms. Christine Loh, JP, Under Secretary for the Environment to discuss the matters which had been raised. In the course of our discussions, she suggested that in future, we also make contact with you as Secretary for Transport and Housing.

More recently, CCCHK has carried out another review of initiatives to improve air quality in Hong Kong. The review is attached to this letter. We have considered developments announced in the press and on Government websites as well as those in the Chief Executive's 2015 Policy Address.

Despite the many excellent initiatives already put into place by both the HKSAR and the Mainland regulatory authorities, there are a number of transport-related issues on which CCCHK urges and supports your immediate action. These recommendations are outlined in the attached submission.

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We would welcome the opportunity to speak with you directly on these issues and invite you to meet with CCCHK leaders and members of its SDC at your convenience.

Yours sincerely,

Philip Leung
President, Canadian Chamber of Commerce in Hong Kong

Attachment

cc: Mr Yau Shing-mu,
Under Secretary for Transport and Housing, The Government of the HKSAR

Mr Joseph Lai,
Transport Branch, Permanent Secretary for Transport and Housing, (Transport),
The Government of the HKSAR

Mr Wong Kam-sing,
JP, Secretary for the Environment, The Government of the HKSAR

Ms Christine Loh Kung-wai, JP,
Under Secretary for the Environment, The Government of the HKSAR

Mr CHAN Mo-po, Paul, MH, JP,
Secretary for Development, The Government of the HKSAR

Mr John WITT,
Chairman, Canadian Chamber of Commerce in Hong Kong

Mr Hendrik ROSENTHAL,
Chairman, Sustainable Development Committee, Canadian Chamber of Commerce in
Hong Kong





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**The Canadian Chamber of Commerce in Hong Kong
Sustainable Development Committee**

**Review of Initiatives to Improve Air Quality in Hong Kong and Initial
Recommendations**

SUMMARY

Air quality has been one of the most prominent issues facing Hong Kong over the past 20 years or more. Although historically air quality has been viewed as an environmental issue, research in recent years has demonstrated that poor air quality, in particular roadside air quality, is a direct and imminent health issue for Hong Kong citizens – attributable to thousands of pre-mature deaths and billions of dollars in medical costs and productivity loss every year. It is also a fundamental social and economic issue that directly impacts Hong Kong's viability as a responsible, sustainable, world-class city.

The Sustainable Development Committee (SDC) of the Canadian Chamber of Commerce in Hong Kong ("CCCHK") recognizes that the air quality issue emerged as both a local and cross-border problem that accompanied the rapid economic development of the PRD region in the past two decades, and that the HKSAR Government has developed and implemented numerous initiatives, including local-source reduction and cross-border collaboration, to achieve the current level of air quality.

But the fact remains that Hong Kong's air quality, although improving, is poor compared to regions such as North America, Europe and Australasia and remains a serious threat to the health and well-being of Hong Kong residents and to the economic success of Hong Kong.

The HKSAR Government has put into place many far reaching initiatives as indeed have the regulatory authorities on the Mainland. As many of these will take years to yield improvements, the public perception remains that little is being done. In reviewing the progress since the issue of the Clean Air Plan in March 2013, there are number of outstanding initiatives which require leadership by the HKSAR Government and in particular the Transport and Housing Bureau:

1. **Develop a more inter-active approach to educating the community and stakeholders with respect to the health benefits and medical savings stemming from improved public transport initiatives, with a view to increasing the community's support for implementing transport-based solutions for cleaning up the air.**
2. **Mandate the use of electric or trolley buses in select areas of Hong Kong Island and Kowloon.**
3. **Conduct a public consultation on the creation of permanent street-level green pedestrian precincts in busy commercial centres such as Central, Causeway Bay, and Mong Kok.**
4. **Develop an innovative approach to rationalize the operation of the three cross-harbour tunnels to improve travel times and reduce roadside air pollution.**
5. **Regulate the fuel quality used by all sea-going vessels while within the waters of the HKSAR – not just at berth. Continue to explore the feasibility of the application of similar regulations by the Guangdong Provincial Government for sea-going vessels whilst at berth and while operating within both the Pearl River Delta and the coastal waters under the Province's control.**
6. **Support the use of bicycles in the New Territories by:**
 - **Providing a more comprehensive network of cycle paths for both recreation and work use together with the necessary infrastructure at terminal points to store bicycles and allow change room facilities.**
 - **Providing a franchised bike supply and hire system whereby a deposit and payment is made by Octopus, the bike is unlocked and ridden to another staging point, and the deposit returned by Octopus.**

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SOURCES AND FACTORS AFFECTING HONG KONG'S AIR QUALITY

Hong Kong's air quality has been and is being affected by a number of factors including:

- Local emission sources, such as motor vehicles, marine traffic, industry and power plants;
- The concentrated cityscape in Hong Kong leading to the "street canyon" effect; and
- Economic activity in the Pearl River Delta region.

OVERVIEW OF HONG KONG'S AIR QUALITY

The latest report on air quality in Hong Kong issued by EPD is for 2013 and shows the following:

- Vehicle emission control programmes have resulted in substantial reductions in the past decade of roadside pollutants (NO_x, RSP, and SO₂). NO₂ has stabilised but remains high.
- The ambient levels in the PRD of NO_x, RSP and SO₂ are "reducing in recent years". "However concentrations of ozone, a major constituent in photochemical smog is on a rising trend".
- "Concentrations of CO and Lead remained at levels well below their respective AQOs".¹

On February 25, 2015, the SCMP reported on results for 2014 released by the EPD. There were substantial year-on-year reductions in NO_x, CO, RSP and SO₂. However concentrations of ozone are continuing to rise. The EPD noted that its measures to reduce air pollution are starting to take effect.

The Air Quality Health Index ("AQHI") was initiated in December 2013. The AQHI identifies health risk on a scale of 1 (best) to 10+ (worst). The monthly summaries (December 2013 to January 2015) show a seasonal pattern – worst in winter and best in summer. They also show that for:

- General stations, the health risk was low and moderate for 44% and 50% of the time, respectively; and,
- For roadside stations, the health risk was low and moderate for 25% and 62% of the time, respectively.

It is reassuring to see efforts by authorities to enforce regulations and to proactively improve future air quality in both the Mainland and Hong Kong.

In Hong Kong, there have been many recent initiatives which will improve future air quality. Examples are:

- The new Air Quality Objectives ("AQOs") have come into force in Hong Kong in 2014.
- The new AQHI has come into force in 2013.
- PM_{2.5} is being monitored at all roadside stations (from 2011).
- In 2014 an incentive scheme for the replacement of diesel commercial vehicles has been rolled out, with initial success.
- Many public car parks in Hong Kong have been fitted with electric vehicle ("EV") charging stations to encourage the use of EVs, and there are now over 1,100 EV charging stations. But more could be done to develop a coordinated network of quick charging stations across the HKSAR.
- The first Registration Tax on all EVs (private cars, motor cycles, taxis, buses and goods vehicles) is waived until March 2017, and some taxi owners are changing over to EVs.
- The Government has set up a \$300 million Pilot Green Transport Fund for application by the public transport trade and goods vehicle owners starting from March 30, 2011.
- In 2013, signatories to the Fairwind Charter voluntarily agreed to either use shore power while at berth or use low-sulphur fuel if at anchor.
- Five major rail projects are under way including the high speed rail connection to Shenzhen. These will be completed over the next few years. Further there are seven new rail projects following as proposed in 2014. These will have favourable impact on road traffic and road side pollution between 2017 and 2026.
- A major dedicated safe bicycle network is being constructed in the New Territories from Ma On Shan to Tuen Mun.

¹ See the Air Quality in Hong Kong Report 2013 available at http://www.aqhi.gov.hk/api_history/english/report/files/AQR2013e_final.pdf



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- There are seven full-time and 40 part-time pedestrian streets in use now and the proposals for the Kai Tak redevelopment, Kowloon Bay business district, West Kowloon Cultural Centre, and along the Central Wanchai Water Front are either in hand or planned. However, there has been insufficient consideration to permanently creating street-level green pedestrian precincts in busy commercial centres such as Central, Causeway Bay, and Mong Kok.
- Low-emission zones for franchised buses in Central, Mong Kok and Causeway Bay have been established. Around 87% of buses used in these zones will be “low-emission” buses by the end of 2015.
- The Government has announced that it is committed to 5% energy savings over the coming 5 years in government buildings. The Government has also announced the development of an energy efficiency strategy in buildings, which is expected to be an “energy-saving roadmap” to reduce electricity consumption for commercial and residential uses, accounting for close to 70% of Hong Kong’s electrical energy.

CCCHK’S RECOMMENDATIONS

- 1. Develop a more inter-active approach to educating the community and stakeholders with respect to the health benefits and medical savings stemming from improved public transport initiatives, with a view to increasing the community’s support for implementing transport-based solutions for cleaning up the air.**

The initiatives noted in the section “Overview of Hong Kong’s Air Quality” above are all available in the public domain but there is no “scorecard” or means to assess and compare the impacts and benefits of transport options available to the public in a format which is easily read and understood by lay people. Simply put, it is too hard to find the ‘good news’ or to understand the impacts or benefits of initiatives taken or planned that require multi-stakeholder support. There is no record of progress which will serve to modify public perceptions of timing regarding the impact of initiatives, in particular transport related improvements that can significantly improve air quality.

- 2. Mandate the use of electric or trolley buses in select areas of Hong Kong and Kowloon.**

Mandate the use of electric or trolley buses in a small number of busy corridors such as Nathan Road and Hennessy Road which are both traffic and pedestrian-heavy and where the public health impact is likely to be the most significant. Limiting the number of such busy corridors would help the HKSAR Government manage any opposition. As trolley buses are being used in many overseas and Mainland cities, the practicality and “implement-ability” is expected to be high, especially with the advent of technological advances such as super-capacitor and electric buses.

- 3. Conduct a public consultation on creating permanent street-level green pedestrian precincts in busy commercial centres such as Central, Causeway Bay, and Mong Kok.**

CCCHK believes that the poor roadside air quality and lack of ‘greening’ in busy commercial centres such as Central, Causeway Bay and Mong Kok should warrant a review and potential rationalisation of transport and a review of the landscape planning. For example, access limitations for motor vehicles in precincts except electric public vehicles may be considered so that traffic volumes can be reduced in order to provide a balance of improved air quality, open space and ‘greening’ in conjunction with meeting the transport needs in the area. With good transport planning measures, the associated negative impacts on traffic flow is expected to be manageable, bringing significantly positive impacts to the community from improved local air quality and public health.

- 4. Develop an innovative approach to rationalize the operation of the three cross-harbour tunnels to improve travel times and reduce roadside air pollution.**

It is commonly acknowledged that the Eastern Harbour Crossing is under-utilized and the Central Harbour Crossing over-utilized due to the significant differences in their toll pricing. The slow moving congested

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traffic using the Central Harbour Crossing adversely affects air quality in Hung Hom, Wanchai and Causeway Bay. The conclusions from the 2013 public consultation on tunnel rationalisation will not be addressing this issue in the coming years.

5. Regulate the fuel quality used by all sea-going vessels while within the waters of the HKSAR – not just at berth. Continue to explore the feasibility of the application of similar regulations by the Guangdong Provincial Government for sea-going vessels whilst at berth and while operating within both the Pearl River Delta and the coastal waters under the Province's control.

The voluntary efforts through the Fair Wind Charter are commendable but CCCHK believes that more must be done by the HKSAR Government. A recent article in the South China Morning Post (December 30, 2014) had the headline "A heavy toll" and it set out the impact on air quality of just one container ship (of unspecified size using unspecified fuel). The article stated that, for example, the emissions of PM2.5 from one such ship equates to the operation of 500,000 Euro IV trucks. Even if this is exaggerated, this is still an unacceptably large impact on air pollution. It also describes the impact of SOX and NOX and sets out the impacts on health. A loose estimate of the number of such ships using the PRD per annum is in the region of 5,500 per annum of which about 40% operate within Hong Kong waters specifically. Whilst regulation is underway to mandate the use of low-sulphur fuels for all sea-going vessels whilst at berth, CCHK believes that this should be extended to cover the issue of cleaner fuels whilst in Hong Kong waters.

CCHK supports the initiative by the HKSAR to explore with the Guangdong Government the feasibility of all sea-going vessels to switch to cleaner fuel while at berth. However, CCHK suggests that this be urgently prioritized and extended to include operation within both the Pearl River Delta and the coastal waters under the Province's control.

6. Support the use of bicycles in the New Territories by:

- **Providing a more comprehensive network of cycle paths for both recreation and work use together with the necessary infrastructure at terminal points to store bicycles and allow change room facilities.**
- **Providing a franchised bike supply and hire system whereby a deposit and payment is made by Octopus, the bike is unlocked and ridden to another staging point, and the deposit returned by Octopus**

A major dedicated safe bicycle network is being constructed in the New Territories from Ma On Shan to Tuen Mun. This will compliment an existing cycle track from Shatin to Tai Mei Tuk and to Wu Kai Sha. These cycle tracks are for recreational purposes. The use of bicycles as a means of transport to and from work and to and from major transport hubs is absent from any plans. CCCHK believes that there are many opportunities for bicycles to be used if both storage and change facilities were provided at MTR stations and safe cycle paths provided to MTR stations. The provision of a franchised bike hire and return system (using Octopus) at various staging points works well in, for example, Toronto, London and Brisbane; given the appropriate infrastructure this could also work well in Hong Kong.

END