Progress Report

Motion Debate on "Air pollution and public health"

Legislative Council Meeting on 7 January 2009

Purpose

On 7 January 2009, the Legislative Council carried the motion on 'Air pollution and public health' moved by the Hon KAM Nai-wai and amended by Hon CHAN Hak-kan, Hon Audrey EU Yuet-mee and Hon LEE Wing-tat. The wording of the motion is at **Annex A**. This note updates Members on the follow-up actions taken in respect of the suggestions put forward by Members in the motion.

Establishment of a "Smog Alarm System"

2. Since 1995, the Environmental Protection Department (EPD) has been alerting the public to the health impacts of the air pollution levels that they are being exposed or will soon be exposed to via its Air Pollution Index (API) system. Based on the concentrations of the key air pollutants (including respirable suspended particulates, nitrogen dioxide, sulphur dioxide, carbon monoxide and ozone) measured by our air quality monitoring network, the system reports the current air pollution level in the form of an air pollution index for easy understanding by the public. It also provides forecast of the API for the next day. The latest API information and forecast are disseminated through the media including the internet, radio, TV broadcasting, EPD hotline and newspapers.

3. The API, which ranges from 0 to 500, is divided into five categories including low, medium, high, very high and severe. Each of them has different health implications. These are set out at **Annex B**. When the API reaches or is forecast to reach very high level or above, advice on the precaution will be given to the public alongside the API announcement. The advice is at **Annex C**.

4. To better inform the public of the air pollution level and its impacts, the Government has engaged an expert team comprising leading academics in the field from the Chinese University of Hong Kong, the Hong Kong University and Hong Kong University of Science and Technology to review the API system. The review will take account of the practices of advanced countries and the latest scientific findings of the health implications of air pollution. It is expected to be completed in 2009.

Adoption of Objectives of WHO's as Benchmarks of Air Quality

5. The EPD has appointed a consultant to review our Air Quality Objectives (AQOs) in the light of the World Health Organisation (WHO)'s air quality guidelines and practices of advanced countries for recommending a new set of AQOs and a long term air quality management strategy for their attainment. The primary objective of the new AQOs is to protect the health of the public.

6. The consultant is making preparations to hold a public forum in March 2009 to canvass the views of the public on the preliminary findings of the review before finalizing his recommendations. Upon the receipt of the recommendations, we will fully consult the public before deciding on the new AQOs and the air quality management strategy.

Conduct of a Long-term Health Tracking Study

7. Since 1997, EPD has commissioned health experts from local universities to conduct a total of eight studies on the public health impacts and economic losses associated with air pollution. The findings have been published on EPD's website. We have also been supporting health experts to do similar studies by providing them with the relevant air quality data. Similar collaboration will continue to be made.

8. It is however difficult to conduct a long-term tracking study for air pollution and health due to the high mobility of local population and the relatively uniform pollution levels in different parts of Hong Kong as

compared with those of other countries.

Food and Health Bureau to Assess the Benefits to Public Health

9. To steer the consultant in the Review on AQO mentioned in paragraph 5 above, we have established an Advisory Panel comprising members with different background and interests, including those from the transport, energy and power sectors, district councillors, as well as experts from the medical, air science, planning, community health fields, etc. Representatives of the relevant government bureaus and departments, including the Food and Health Bureau and the Department of Health, are also members of the Advisory Panel and its subgroups, and have been providing input to the review from their respective professional areas. The Food and Health Bureau and the Department of Health have been helping ensure that the assessment of the benefits to public health as a result of the implementation of new Air Quality Objectives is properly conducted.

Implement Measures to Regulate Vehicle Emission in Busy Areas, Develop Footbridge Networks and Encourage Use of Mass Transit Systems

Measures to Regulate Vehicle Emissions

10. The Administration is studying the feasibility of setting up a pilot "low emission zone" at one or more busy corridors that prohibits entrance of older franchised buses for better roadside air quality there. The study is expected to be completed in 2009.

Development of Footbridge Networks

Hong Kong Island

11. The works for the shared surface pedestrian scheme at Lockhart Road between Cannon Street and East Point Road would commence in mid February 2009 and are scheduled for completion in early 2010.

12. The Transport Department is in the process of engaging consultants to carry out a study on the technical viability of building subways in the core area of Causeway Bay. It is anticipated that the consultancy study will commence in March 2009 and take about 12 months to complete.

13. The Highways Department will soon engage consultants to carry out the design of the Gloucester Road elevated walkway. Upon completion of the preliminary design, the Highways Department will consult the relevant District Councils in late 2009 or early 2010 regarding the scheme and programme of the project.

Kowloon

14. The works for the traffic calming measures at Saigon Street between Shanghai Street and Parkes Street and Bowring Street (between Nathan Road and Parkes Street) are in progress. They are scheduled for completion in end 2009.

15. The Transport Department is in the process of engaging consultants to carry out a study on the feasibility of improving pedestrian links in the core area of Mong Kok. The consultancy study is expected to commence in March 2009 and take about 12 months to complete.

New Territories West

16. To improve the environment of the Yuen Long town centre areas with heavy pedestrian flows, the Highways Department is now planning to employ a consultant to commence a study to look into possible pedestrian flow improvement measures. The study will investigate the feasibility and benefits of various options, which will cover footbridges, pedestrian subways, pedestrianized streets and traffic calming streets. It will also invite the public to express their views on the establishment of suitable conceptual layout options. The study is estimated to be completed in 2010.

New Territories East

17. To improve the condition of pedestrian crossing at the junction of Tong Ming Street and Tong Chun Street, and to enhance the pedestrian flow at Tong Chun Street, the Highways Department has planned to construct an elevated walkway between Tong Ming Street and Tong Tak Street. It will be connected to an existing footbridge at Tong Ming Street, forming part of the elevated walkway system transporting pedestrians between Sheung Tak Estate and Tseung Kwan O MTR Station. Construction will commence in early 2010 for completion at end 2011.

Encouraging the Public to Use Mass Transit Systems

18. The Transport Department will continue to co-ordinate with the concerned transport operators to improve the quality of their services, which is a key to encouraging the public to further enhance their patronage of the public transport services.

Subsidy Scheme for Owners of Commercial Diesel Vehicles

19. The existing subsidy scheme has provided considerable fiscal incentive for owners of pre-Euro and Euro I diesel commercial vehicles to replace them with new ones. We have also extended the application duration for pre-Euro diesel commercial vehicles to 31 March 2010 (i.e. same as the application duration for Euro I diesel commercial vehicles) to allow more time for owners to take advantage of the subsidy to replace their vehicles. As at end of January 2009, we have received 10,903 applications and approved 10,763 of them.

20. To provide further impetus to phase out these old commercial vehicles, we consider it necessary to introduce disincentives against their continued use such as increasing their vehicle licence fees. However, the the Panel on Environmental affairs of the Council does not support the proposal. We will continue to examine how to accelerate the replacement of these vehicles.

21. As for expanding the scheme to franchised buses, the Government considers it necessary to take a cautious view on whether to use public funds to subsidise franchised bus companies to advance the replacement of their old buses ahead of the normal schedule, taking account also of the implications of the proposal for other public transport operators. The Government will continue to encourage the franchised bus companies to replace their old buses according to operational needs and adopt other measures, such as bus route rationalization and retrofitting old buses with emission reduction devices, to reduce bus emissions. In balancing with other commitments, we shall also encourage franchised bus companies to deploy cleaner buses to busy corridors as far as possible.

Building Energy Codes, Energy Efficiency Labelling Scheme and Emission Caps for Power Companies

22. The Government completed a public consultation exercise on the proposed mandatory implementation of the Building Energy Codes in March 2008. Given the general support received from the public and various stakeholders, we are now preparing the relevant legislative proposal, with an aim to introduce the legislation into the Legislative Council in 2009.

23. The Government enacted the Energy Efficiency (Labelling of Products) Ordinance in May 2008 which introduces a Mandatory Energy Efficiency Labelling Scheme for room air conditioners, refrigerating appliances and compact fluorescent lamps. In view of the public support for the Scheme, we are now preparing amendments to the Ordinance for the second phase of the Scheme.

24. To ensure the achievement of the 2010 emission reduction targets agreed with the Guangdong Provincial Government, we have imposed and been progressively tightening the emission caps of the power plants since August 2005. We will continue tightening the caps taking account of the need to improve the air quality in accordance with the relevant provisions under the Air Pollution Control Ordinance.

Post-2010 Cross-Boundary Cooperation

25. In the 2008-09 Policy Address, the Chief Executive set out a strategy for developing the Pearl River Delta Region into a low-carbon, high-technology and low-pollution cluster of cities with quality living. The strategy will help further enhance the competitiveness of Guangdong and Hong Kong and improve the quality of life in the region. It will also promote the sustainable development of the Pearl River Delta Region. Building on the past collaborative efforts, both sides seek to develop a more all-rounded strategy to address the environmental issues facing the region. Mapping out the post-2010 arrangements for tackling regional air pollution will be one of the key areas of co-operation. Both governments will work together to draw up detailed cooperation arrangements.

Encouraging the Use of Cleaner Cars

26. Since 1 April 2007, we have been encouraging the use of environment-friendly private cars by reducing 30% of their first registration tax, subject to a cap of HK$50,000 per car. As at end January 2009, we received 7 041 applications and approved 7 034 of them. They accounted for 11% of the newly registered private cars in the period. Currently, there are 21 environment-friendly private car models available on the local market, an increase of 60% before the commencement of the scheme.

Raising the Proportion of Natural Gas Electricity Generation to 50%

27. The feasibility of increasing the use of natural gas depends on-

(a) the adequate supply of natural gas;
(b) the lead time required for building additional gas generation units and associated gas supply infra-structure; and
(c) the readiness of consumers and businesses to bear the additional cost.

28. The Government plans to consult the public on raising the "50% fuel mix for local power generation" in the context of the review of AQOs as part of the package of emission reduction measures required for attaining the proposed new AQOs. In light of the views and comments of the public and the stakeholders, we would work out the proposal with the power companies as soon as reasonably practicable.

Relocation of Air Pollution Sources Adjacent to Residential Areas

29. In consultation with the EPD, the Planning Department has provided broad guidance for environmental planning of both public and private developments under Chapter 9 'Environment' of the Hong Kong Planning Standards and Guidelines (HKPSG). The relevant guidelines apply to the planning of permanent or temporary uses which might cause significant changes to the environment or which are sensitive to environmental impacts.

30. The Chapter sets out the planning guidelines for locating new developments or redevelopments, which might potentially cause nuisance or pollution, with a view to minimizing the adverse environmental impacts caused by them. Under the 'Air Quality' Section of the Chapter, broad locational guidelines for potential air polluting uses such as industrial uses, trunk roads, slaughterhouses, sewage treatment works, etc., are provided, including specifying the minimum buffer separation from environmental sensitive uses (e.g. residential development).

31. Where justified and upon request of the concerned bureaux/departments, the Development Bureau and its departments would facilitate the relocation of sources of air pollution through planning and lands policy.

Stepping Up Tree-Planting and Greening Efforts

32. The Government is actively promoting greening to improve the living environment. A high-level Steering Committee on Greening (chaired by the Permanent Secretary for Development (Works) with

members at directorate grade drawn from 15 bureaux and departments) has been established to provide steer to our greening policy and coordinate the efforts of the relevant departments.

33. As regards the greening efforts on roads, the Highways Departments (HyD) is exploring greening existing vehicle bridges and footbridges (such as Sha Lek Highway near Prince of Wales Hospital), and planting trees in conjunction with upgrading of existing footways. HyD also integrates greening into new road projects including providing green nodes at suitable locations for special thematic planting. HyD has also conducted several trials on provision of green panels on noise barriers (such as that in Deep Bay Link).

34. Meanwhile, the Civil Engineering and Development Department is developing and implementing Greening Master Plans (GMPs) for the various districts in Hong Kong and Kowloon to systematically explore greening opportunities (including tree planting) along existing roads. The greening work of the GMPs for Mong Kok, Yau Ma Tei, Sheung Wan, Wan Chai and Causeway Bay commenced in August 2008 for completion by end 2009. Subject to the funding approval by the Finance Committee, the greening work of the GMPs for the remaining urban areas will commence in September 2009 for completion by end 2011.

35. As regards the greening efforts in buildings, the Architectural Services Department and the Housing Department are taking forward greening initiatives in government building and public housing projects respectively through creating planting strips along internal roads, greening on vertical surfaces (such as Kwai Chung Estate Greening Improvement), greening of rooftops (such as Causeway Bay Community Hall), and planting in carparks and covered walkways.

36. The Urban Renewal Authority actively supports the greening concept in regenerating older urban districts. A typical example of such efforts is the Vision City project in Tsuen Wan, incorporating distinctive green features such as Living Wall and Open Piazza. The project achieved the "Platinum" rating under the Hong Kong Building Environmental Assessment Method in January 2008.

37. The Environment Bureau and the Development Bureau will soon conduct in collaboration with the Council for Sustainable Development a public engagement exercise on fostering a quality and a sustainable built environment. Provision of more greenery in private building developments is amongst one of the policy options to be put forward in the public engagement exercise. The Administration will carefully consider the findings of the public engagement exercise before deciding on the way forward.

Environment Bureau
March 2009

Annex A

Motion on "Air pollution and public health"
Carried by LegCo on 7 January 2009

"That there is no marked improvement in the air quality in the Pearl River Delta Region, posing an increasing threat to Hong Kong people's health, but the Government still uses the first stage objectives of the World Health Organization ("WHO") as the goals of the reform in its recent review of Air Quality Objectives, this Council expresses disappointment at this; quite a number of local and overseas studies nowadays have proved that serious air pollution will increase death rates as well as direct and indirect medical costs, and result in a loss in productivity, in this connection, this Council urges the Government to:

(a) establish a "smog alarm system" and formulate guidelines and corresponding measures for the alarm system, so as to enable the public to know more about the impact of air pollution on health;

(b) adopt the latest objectives of WHO as the benchmark for formulating measures to improve air pollution, evaluate the effectiveness of each of these measures in improving public health, and set improving public health as the primary policy objective in addressing the problem of air pollution;

(c) conduct a long-term tracking study to accurately calculate the loss of life expectancy in the territory resulting from air pollution, as well as the impact of air pollution on the health of people of different ages (including the elderly and children) and on those suffering from various forms of respiratory illnesses and cardiovascular diseases in the territory, so as to provide reference data for formulating long-term policies; and provide financial support to those academic institutions and non-profit-making bodies which are interested in conducting the above study;

(d) in conducting the review of Air Quality Objectives, entrust the Food and Health Bureau with the responsibility of assessing whether the intended benefits to public health as a result of the implementation of new Air Quality Objectives have been achieved and, based on the assessment results, formulate the guiding framework, timetable and corresponding air

quality improvement measures for implementing the new Air Quality Objectives;

(e) continue to implement measures to regulate the emission standards of vehicles in areas with busy traffic, develop footbridge networks and encourage the public to use mass transit systems;

(f) improve the subsidy scheme for owners of commercial diesel vehicles to replace such vehicles with new ones and attract more owners to participate in the scheme, as well as expand the subsidy scheme to cover franchised buses;

(g) gradually implement the mandatory Building Energy Codes and mandatory energy efficiency labelling for electrical appliances, and expeditiously set the caps on the emissions of air pollutants from power companies for the next stage, so as to reduce pollution caused by generation of electricity;

(h) expeditiously discuss with the Guangdong Provincial Government the post-2010 cross-boundary cooperation plan between Hong Kong and the Mainland for improving air quality, and draw up the post-2010 emission reduction targets to further improve the air quality in the Pearl River Delta Region;

(i) implement appropriate policies and measures to encourage owners of private cars to use cleaner cars;

(j) expeditiously formulate a timetable and an action plan for achieving the target of raising the proportion of electricity generated by natural gas to 50%;

(k) relocate the sources of air pollution (e.g. concrete plants) which are adjacent to residential areas, so as to reduce the impact of pollutants on the health of the residents nearby; and

(l) step up tree-planting and greening efforts on roads and in high-rise buildings, and introduce more greening concepts into the procedures for renewal of old districts and construction of new roads.

Annex B

Air Quality Status	Air Pollution Level	API	Health Implications [1]
Air quality significantly worse than both short-term and long-term AQOs.	Severe	201 to 500	People with existing heart or respiratory illnesses may experience significant aggravation of their symptoms and there will be also widespread symptoms in the healthy population. These include eye irritation, wheezing, coughing, phlegm and sore throat.
Air quality worse than both short-term and long-term AQOs.	Very High	101 to 200	People with existing heart or respiratory illnesses may notice mild aggravation of their health conditions. Generally healthy individuals may also notice some discomfort.
Air quality within the short-term AQOs but worse than the long-term AQOs.	High	51 to 100	Very few people, if any, may notice immediate health effects. Long-term effects may, however, be observed if you are exposed to such levels for a long time.
Air quality within all AQOs.	Medium	26 to 50	None to the general population.
Air quality well within all AQOs.	Low	0 to 25	None to the general population.

[1] The health implications set out above serve as a broad guide only as a gradual increasing risk of effects is expected as pollutant concentrations rise.

Annex C

Air Pollution Level	API		Advice to Public	
			General API	Roadside API
Severe		201-500	The general public are advised to reduce physical exertion and outdoor activities	The general public are advised to avoid prolonged stay in areas with heavy traffic. If it is necessary to stay in streets or roads with heavy traffic, they are advised to reduce physical exertion as far as possible.
Very High		101-200	Persons with existing heart or respiratory illnesses (such as coronary heart and cardiovascular diseases, asthma, chronic bronchitis and chronic obstructive airways diseases) are advised to reduce physical exertion and outdoor activities.	Persons with existing heart or respiratory illnesses (such as coronary heart and cardiovascular diseases, asthma, chronic bronchitis and chronic obstructive airways diseases) are advised to avoid prolonged stay in areas with heavy traffic. If it is necessary to stay in streets or roads with heavy traffic, they are advised to reduce physical exertion as far as possible.
High		51-100	No immediate response action is suggested -- Long-term effects may, however, be observed if exposed at this level persistently for months or years	
Medium		26-50	No response action is required.	
Low		0-25	No response action is required.	