For information on
21 January 2010

LEGISLATIVE COUNCIL
PANEL ON ENVIRONMENTAL AFFAIRS

The United Nations Climate Change Conference 2009

PURPOSE

The Administration updated this Panel on the Government's latest initiatives and efforts in addressing climate change with a view to, *inter alia*, preparing for the United Nations Climate Change Conference 2009 on 2 November 2009. This paper sets out the outcome of the Conference and the Administration's next steps in tackling the challenge of climate change.

THE UNITED NATIONS CLIMATE CHANGE CONFERENCE 2009

2. The fifteenth session of the Conference of Parties to the United Nations Framework Convention on Climate Change (the Convention) and the fifth session of the Conference of Parties serving as the meeting of the Parties to the Kyoto Protocol (the Protocol), collectively called the United Nations Climate Change Conference 2009 (the Conference) was held in Copenhagen, Denmark from 7 to 19 December 2009. Representatives from 194 sovereign states, including 119 heads of state and government, attended the Conference in an effort to come up with a collective solution to climate change. The Secretary for the Environment and five other HKSAR government officials attended as members of the Chinese delegation to the Conference.

3. A large number of issues were discussed at length and decisions on the following issues were adopted at the Conference : -

- long-term cooperative action under the Convention;

- further commitments for Annex I Parties under the Protocol;

- Clean Development Mechanism;

- activities relating to reducing emissions from deforestation and forest degradation;

- Adaptation Fund; and

- capacity-building under the Convention and the Protocol.

Copenhagen Accord

4. The Conference took note of the legally non-binding "Copenhagen Accord" (the Accord) submitted by China, the USA, Brazil, South Africa and India to limit the increase in surface temperature of the earth to below 2 degrees Celsius, and to raise finance to kick-start action in the developing world to deal with climate change. The Accord was supported in the closing session of the Conference by a majority of countries, including the European Union, the African Union, the Alliance of Small Island States, Singapore, Japan, Australia, etc., with a few members expressing reservations[1].

5. The Accord recognizes the scientific view that an increase in global temperature below 2 degrees Celsius is required to stave off the worst effects of climate change. To achieve this goal, the Accord specifies that industrialized countries will commit to implement, individually or jointly, quantified economy-wide emissions targets from 2020, to be listed in the Accord before 31 January 2010. Other countries, including China, agreed to communicate their mitigation actions in limiting greenhouse gas (GHG) emissions every two years, as well as listing their pledges before the said date. These actions will be subject to domestic measurement, reporting and verification (MRV).

6. It is intended that a "Copenhagen Green Climate Fund" (the Fund) will be established to support actions on mitigation, adaptation, technology, reducing emissions from deforestation in developing countries and capacity building etc.. The collective commitment towards the Fund by developed countries during 2010 - 2012 will

[1] Countries which expressed reservations on the Accord during the closing session of the Conference included Bolivia, Cuba, Nicaragua, Sudan, and Venezuela.

approach USD 30 billion. Developed countries also agreed to support a goal of jointly mobilizing USD 100 billion a year by 2020 to address the needs of developing countries.

7. While the Conference has failed to produce a legally binding agreement which sets out GHG reduction targets for the Annex I Parties, the Accord is vital to the next phase of work. It also laid the foundation for future international action in tackling the challenge of climate change.

CLIMATE CHANGE IMPLICATIONS FOR HONG KONG – THE NEED FOR ADAPTATION AND MITIGATION

8. The Administration commissioned a Climate Change Consultancy Study on Hong Kong (the Study) in March 2008, and it is close to completion. The consultants have initially identified the following key areas of vulnerability in Hong Kong:

- biodiversity and nature conservation;
- built environment and infrastructure;
- business and industry;
- energy supply;
- financial services;
- food resources;
- human health; and
- water resources.

9. Preliminary consultancy findings suggest that Hong Kong possesses significant adaptive capacity and has many systems in place which could be used to adapt to the physical impacts of climate change. It is however likely that some of the policies and facilities may need to be up-scaled.

10. In respect of mitigation, initial modeling results indicate that we would need to adopt a low carbon strategy comprising the following measures:-

(a) acceleration of the shift from coal to gas generation so as to reduce carbon emissions. This will require additional gas supply and the phasing out of coal plants;

(b) increasing the proportion of non-fossil fuel, e.g. renewable

and/or nuclear, in our fuel mix;

(c) better utilization of landfill gas as an energy source and building of waste-to-energy facilities, e.g. Integrated Waste Management Facilities (IWMF);

(d) replacement of petrol vehicles by electric vehicles by a substantial number;

(e) wider adoption of biofuels as motor fuels; and

(f) redoubling of our effort in enhancing energy efficiency.

11. The consultants will conduct stakeholder engagement exercises in February to April on both climate change adaptation and mitigation before completion of the Study. More detailed analysis will be presented.

China's Position

12. On 26 November 2009, the Central People's Government (CPG) announced a voluntary national target to reduce carbon intensity[2] by 40%-45% by 2020 as compared with 2005 level. CPG leaders have stated that the target would be pursued irrespective of the outcome of the United Nations negotiation. As a result of the Copenhagen Accord, this voluntary national target is likely to be included under the Accord's reporting mechanism. China's mitigation actions will also be subject to domestic MRV.

Implications for Hong Kong

13. Hong Kong will continue to pursue a vigorous action agenda to reduce GHG emissions. Currently, our per capita emission stands at about 6 tonnes, slightly below the world average of around 7 tonnes[3]. Despite an absence of a legally-binding agreement from the Conference,

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[2] Carbon intensity refers to the amount of carbon dioxide produced for each yuan of national income.

[3] For reference purpose, the per capita emission in Singapore is 9 tonnes, Japan 10 tonnes, USA 23 tonnes and Australia 26 tonnes.

the momentum of the city's effort in reducing GHG emissions should continue to be stepped up. Following the announcement of the voluntary national target by CPG in November, the Administration has tasked its consultant to conduct additional modeling work on possible mitigation options in light of the voluntary national target. We need the concerted efforts of the community in further reducing the carbon footprint of our city. We shall avail Members with further information upon the completion of the Study.

14. Being part of China, Hong Kong's efforts in support to achieving the Mainland's voluntary target will need to be communicated to CPG. We will further discuss with CPG on how Hong Kong's mitigation measures and MRV results are to be communicated to CPG under the biennial reporting timeframe as set out in the Accord.

THE ADMINISTRATION'S NEXT STEPS IN TACKLING THE CHALLENGE OF CLIMATE CHANGE

15. For Hong Kong to achieve locally this voluntary target will require determination, immense efforts and support from all walks of life in Hong Kong, including inevitable changes in lifestyle and behaviour, and a favourable external economic environment. In addition, as suggested by initial modeling results of the Study, Hong Kong needs to introduce a more aggressive climate change strategy. The following sets out the major directions for further strengthening our climate change mitigation strategy : -

(a) ***Energy Supply*** **–** as electricity generation accounts for over 60% of Hong Kong's GHG emissions, there is no way Hong Kong could substantially bring down its carbon footprint without changing the fuel mix for power generation. In addition to increasing the level of natural gas in the fuel mix for power generation, the portion of non-fossil fuel, such as renewable and/or nuclear, in our fuel mix should also be increased such that nuclear electricity and natural gas combined will meet a significant majority proportion of the domestic electricity need. Consideration will have to be given on how to, if necessary, early retire coal-fired power generating units by 2020.

(b) ***Energy Efficiency*** **–** energy demands will need to be cut through more aggressive energy efficiency programmes, including mandatory energy efficiency requirements for new buildings and buildings with major retrofitting. In addition to the Building Energy Efficiency Bill currently being examined by the Legislative Council and the Building Energy Efficiency Funding Schemes which provide up to $450 million of subsidies to private building owners to conduct energy-cum-carbon audits and energy efficiency projects, consideration will also be given to introducing mandatory energy efficiency standards / labeling for electrical appliances and other products (e.g. motor vehicles), as well as related incentives. The Administration will also work closely with the newly constituted Hong Kong Green Building Council in refining and promoting Hong Kong's own standards of green buildings.

(c) ***Infrastructure*** **–** to promote efficient use of energy and utilization of renewable energy, a low carbon city concept should be adopted in the planning of new development areas. Consideration will be given to putting up the necessary infrastructure, both in the form of hard and soft ware, such as :-

(i) more extensive use of district cooling systems in new development and redevelopment areas;

(ii) increase the coverage of green public transport systems such as railways, energy efficient public buses running on cleaner fuels;

(iii) introduction of policy initiatives and facilities such as charging points to promote the use of electric vehicles;

(iv) supporting facilities that will enhance capture and reusing landfill gas as an energy source;

(v) introduction of distribution network to promote biofuels for motor vehicle uses;

(vi) building of waste cooking oil collection network to allow more efficient production of biodiesels; and

(vii) construction of Integrated Waste Management Facilities to fully utilize the renewable energy available and to avoid production of GHG in landfills.

(d) Government Taking the Lead **–** while efforts to combat climate change would require the participation of the community at large, the Administration shall continue to take the lead to initiate changes. We shall consider conducting measurement, reporting and verification of GHG performance on a regular and transparent basis in the public sector and will encourage private sector participation. As a major procurer of services and goods, the Administration should also seek to introduce carbon performance requirements in the procurement, operation and delivery of services. For example, the Administration is introducing electric vehicles into its fleet. It has been requiring new and major retrofit Government building projects to meet the Building Energy Codes since 2005. Moreover, a comprehensive target-based environmental performance framework was introduced for new and existing Government buildings since April 2009.

ADVICE SOUGHT

16. Members are invited to note the outcome of the Conference and the Administration's next steps to combat climate change.

Environment Bureau
January 2010