LCQ9: Climate change

Following is a question by the Hon Martin Liao and a written reply by the Secretary for the Environment, Mr Wong Kam-sing, in the Legislative Council today (December 12):

Question:

The Hong Kong Climate Change Report 2015 published by the Government has pointed out that Hong Kong's annual greenhouse gases (GHG) emissions over the period from 1990 to 2012 ranged from 33.3 million to 43.1 million tonnes of CO2-equivalent (CO2-e), and has explained that the slight rise in carbon emissions in 2012 was likely due to an increase in local cement production to meet the demand of infrastructure projects. In this connection, will the Government inform this Council:

(1) of Hong Kong's GHG emissions each year since 2013, with a breakdown by emission source, and the causes for the relevant figures to rise, drop or remain unchanged;

(2) of the current per capita carbon emissions in Hong Kong, together with a roadmap on how the per capita carbon emissions reduction targets set by the authorities can be attained, i.e. being reduced to "less than 4.5 tonnes" in 2020, and further reduced to "about 3.3 to 3.8 tonnes" in 2030; the expected time when the per capita carbon emissions can be reduced to 2 tonnes CO2-e, and when the target of keeping the global average temperature increase to below 2 degrees Celsius relative to pre-industrial levels can be attained;

(3) whether it will echo the appeal made by the Intergovernmental Panel on Climate Change (IPCC) in the IPCC Special Report on Global Warming of 1.5°C published this year by stepping up its efforts in leading Hong Kong people in making contributions towards keeping the global average temperature increase to not more than 1.5 degrees Celsius, including formulating more ambitious targets for carbon intensity and emissions reduction; if so, of the details; if not, the reasons for that; and

(4) regarding the report on Study on Emissions Trading in the Mainland: Options for Hong Kong published last year by the former Central Policy Unit, in particular the recommendation in the report that the issue of carbon pricing be raised and formulation of corresponding actions be considered at the meetings of the Steering Committee for Climate Change, whether the authorities have taken follow-up actions; if so, of the details; if not, the reasons for that?

Reply:

President,

The Government attaches great importance to addressing the likely impact that might be brought by climate change, and actions have been taken on various fronts to reduce greenhouse gas (GHG) emissions. To combat climate

change, the Government established the Steering Committee on Climate Change (SCCC) in 2016 under the chairmanship of the Chief Secretary for Administration to steer and co-ordinate actions amongst different bureaux and departments, and released Hong Kong's Climate Action Plan 2030+ in January 2017, setting out in detail the targets and key measures on mitigation, adaptation and resilience to combat climate change. On the basis of the level of Hong Kong's carbon intensity in 2005, our target is to reduce our carbon intensity by 50 per cent by 2020, and by between 65 per cent and 70 per cent by 2030 (which is equivalent to an absolute reduction of 26 to 36 per cent), and our per capita emissions will be reduced from 5.7 tonnes in 2016 to 3.3 to 3.8 tonnes by 2030, so as to align with the target of the Paris Agreement to limit the increase in the global average temperature to well below 2 degrees Celsius above preindustrial levels.

My responses to the question raised by Hon Martin Liao are as follows:

(1) The Environmental Protection Department compiles the GHG inventory in accordance with the guidelines published by the United Nations' Intergovernmental Panel on Climate Change (IPCC). The GHG emissions by source from 2013 to 2016 are set out as follows:

Year	Greenhouse gas emissions (in kilotonnes CO2-e)						
	Energy			Waste	Industrial Processes and Product Use	Agriculture, Forestry and Other Land Use	Total+
	Electricity Generation #	Transport	Other End Use of Fuel @				
2013	30 300	7 370	2 320	2 540	1 720	32	44 300
2014	31 200	7 340	2 210	2 530	1 640	31	45 000
2015	27 700	7 530	2 290	2 450	1 720	30	41 700
2016 *	27 900	7 500^	2 300	2 490	1 710	31	41 900

Remarks:
* Provisional figures subject to revision.
# Including GHG emissions arising from Towngas production which accounted for about 0.73 per cent of the total GHG emissions in Hong Kong in 2016.
@ Including use of fuel for combustion in commercial, industrial and domestic premises.
+ The sum of individual items may not equal to total owing to rounding.
^ In 2016, carbon emissions arising from railway electricity consumption accounted for 2 per cent or so of the overall carbon emissions in Hong Kong and were counted into the electricity generation sector. If these emissions were counted into the transport sector, the total carbon emissions from transport will make up about 20 per cent of our overall carbon emissions.

From 2013 to 2016, Hong Kong's total GHG emissions reduced by about 5 per cent to 41 900 kilotonnes CO2-e from 44 300 kilotonnes CO2-e, mainly

attributable to the reduction in electricity generation by power plants and the fact that more natural gas and less coal was burnt for electricity generation, leading to the reduction of the GHG emissions from electricity generation from 30 300 kilotonnes CO2-e to 27 900 kilotonnes CO2-e.

(2) and (3) To meet the 2020 and 2030 carbon emission targets, the Government will continue to optimise the fuel mix, promote wider use of renewable energy, improve energy efficiency and conservation, promote low carbon transport, adopt waste to energy, and other suitable measures to reduce GHG emissions. It is anticipated that Hong Kong's carbon emissions will peak before 2020.

Pursuant to the Paris Agreement, all Parties should strive to formulate and communicate long-term low GHG emission development strategies by 2020. As part of China as well as a responsible member of the global community, Hong Kong should develop a long-term decarbonisation strategy up to 2050 by 2020. To this end, the Government has invited the Council for Sustainable Development (SDC) to conduct a public engagement (PE) exercise in early 2019, which will include collecting public views on whether and, if so, at what level a specific carbon reduction target for 2050 should be set (e.g. in line with the 2 degrees Celsius or 1.5 degrees Celsius targets of the Paris Agreement).

The IPCC Special Report on Global Warming of 1.5°C published by the IPCC in October 2018 assessed the impacts of global warming of 1.5 degrees Celsius above the pre-industrial level and related global GHG emissions pathways, providing policymakers with the required scientific evidence to formulate climate action plans for achieving the goal of the Paris Agreement (i.e. holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to within 1.5 degrees Celsius).

The Government would strive to conclude by 2020 the latest the development of Hong Kong's long-term decarbonisation strategy up to 2050. Apart from the recommendations to be put forward by the SDC after the PE exercise, the Government will also consider the latest scientific developments such as the IPCC Special Report on Global Warming of 1.5°C in formulating the strategy.

(4) The former Central Policy Unit published the report entitled Study on Emissions Trading in the Mainland: Options for Hong Kong (the Study) on June 12, 2017. The scope of the Study includes whether Hong Kong is well positioned to develop its own carbon emissions trading (carbon trading) market and, if so, what role Hong Kong can play in the national carbon market.

The views of the stakeholders interviewed in the Study were diverse and there was no majority view or clear direction.

The SCCC discussed the proposals put forward in the Study and agreed that Hong Kong is not yet in a position to establish its own carbon trading market at this stage. The relevant bureaux and departments will continue to

keep in view the development of the national carbon market and the international carbon emissions trading schemes, consider the feasibility of setting up carbon emissions trading schemes in Hong Kong in due course, and explore the role Hong Kong can play in the national carbon market.