

LCQ10: Protective measures against extreme weather at coastal locations

Following is a question by the Hon Edward Leung and a written reply by the Secretary for Development, Mr Michael Wong, in the Legislative Council today (April 27):

Question:

The Civil Engineering and Development Department engaged consultants in 2019 to commission the Coastal Hazards Study to comprehensively review the condition of low-lying coastal or windy locations, and to carry out the relevant investigations of storm surges and waves in order to assess the impacts of extreme weather on these locations. In addition, based on the situation during the onslaught of typhoons in the past, the Government has identified three locations vulnerable to seawater inundation due to overtopping waves (overtopping wave spots). In this connection, will the Government inform this Council:

(1) of the progress of the aforesaid study, and whether it will make public the study findings;

(2) of the respective numbers of exceedances of the alert water level recorded at the three overtopping wave spots in each of the past three years;

(3) given that the Government has earlier on carried out improvement works at the overtopping wave spots at South Horizons and Tseung Kwan O South, whether it has plans to build breakwaters or carry out improvement works at the overtopping wave spot at Heng Fa Chuen; if so, of the timetable;

(4) given that the inability of seawalls to withstand waves during the onslaught of typhoons could possibly result in casualties, whether the Government will assist or subsidise the owners of the private lands concerned in building breakwaters or carrying out improvement works, so as to safeguard the safety of the public; and

(5) as the Government has indicated in Hong Kong's Climate Action Plan 2050 that it plans to implement improvement works and formulate management measures for some of the existing low-lying coastal or windy locations in order of priority, of the details of the priority accorded to the locations concerned?

Reply:

President,

The geographical location of Hong Kong makes it susceptible to weather-related threats such as tropical cyclones, rainstorms and storm surges. In particular, some relatively low-lying or windy locations along the coast are vulnerable to extreme storm surges or breaking waves, resulting in situations

of sea water inundation or damage to coastal facilities, etc. Threats induced by extreme weather will become more frequent and severe under the climate change. The Government is very concerned about this matter. In 2019, the Civil Engineering and Development Department (CEDD) engaged consultants to commission the Coastal Hazards under Climate Change and Extreme Weather and Formulation of Improvement Measures – Feasibility Study (Coastal Hazards Study) to comprehensively review the impacts of storm surges and waves on coastal low-lying or windy locations under extreme weather and climate change.

In addition, based on the situation during the passage of severe or super typhoons in the past, the Drainage Services Department has identified three overtopping wave spots, namely Tseung Kwan O South, South Horizons and Heng Fa Chuen, and other storm surge spots. It has also installed gauging stations to monitor the sea water level such that contingency measures could be put in place as soon as possible.

Responses to the questions raised by the Hon Leung are hereby provided as follows:

- (1) The CEDD announced on April 7 this year the Coastal Hazards Study, and uploaded the executive summary of study report to the departmental website for public viewing.
- (2) No water level exceeding alert level has been recorded at the gauging stations of the three overtopping wave spots since their commission in 2020.
- (3), (4) and (5) During the period from 2019 to 2020, the Government constructed planter walls and flood barriers at Heng Fa Chuen Playground to alleviate the flooding caused by the influx of overtopping wave water to the concerned area. The Government has been maintaining close communication with the management office of Heng Fa Chuen to provide them with technical advice on the installation of demountable flood barriers at the entrances of their car parks and residential building blocks; and the relevant works have been completed at Heng Fa Chuen.

To comprehensively review the impacts of storm surges and waves on the coastal areas, the Coastal Hazards Study adopted a risk management approach to assess the likelihood of coastal hazards and the severity of consequences, and made reference to the records of coastal damage caused by super typhoons in the past. It identified 26 coastal low-lying or windy residential areas with higher risks (including Heng Fa Chuen) for formulation of improvement works and management measures to safeguard public safety. The Government plans to take forward the various improvement works and implement the relevant management measures in an orderly manner over the next five years, and will conduct timely consultation with the stakeholders so as to meet the locals' needs and expectations. The Government will closely monitor the progress of the improvement works and management measures, and will keep track of climate change situation for carrying out a timely review of the measures for coping with coastal risks.