## 立法會 Legislative Council

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## **Panel on Security**

# Information note prepared by the Legislative Council Secretariat for the meeting on 5 June 2018

Government's preparedness for the approach of typhoon season and related natural disasters and emergency response

According to the Administration's reply to a question raised by a Member at a Council meeting, natural disasters that occur in Hong Kong are generally related to flooding and landslips resulting from rainstorms, as well as such impacts as strong wind, heavy rain and storm surges brought about by tropical cyclones. These conditions can result in disruption to transport and other essential services, and even inflict casualties. Attaching importance to the safety of citizens, the Administration has formulated contingency plans to cope with all types of natural disasters and makes regular reviews and revisions to ensure the preparedness of its departments and organizations. The Administration also heightens the citizens' safety awareness with regard to natural disasters through publicity and public education. The relevant question and the Administration's reply is in the **Appendix**.

- 2. Members may wish to note that after the issue of the Hurricane Signal No. 10 during the passage of typhoon Hato in August 2017, the Security Bureau has invited all relevant departments listed in the "Contingency Plan for Natural Disasters" to conduct a comprehensive review of their work and coordination with other departments, and to propose measures with a view to further enhancing their capability and efficiency in coping with natural disasters.
- 3. The Administration will brief the Panel on Security on its preparedness for the approach of typhoon season and related natural disasters and emergency response at its meeting on 5 June 2018.

Council Business Division 2
<u>Legislative Council Secretariat</u>
30 May 2018

## **Appendix**

## **Press Releases**

LCQ16: Contingency plans to cope with natural disasters

Following is a question by the Dr Hon Priscilla Leung and a written reply by the Secretary for Security, Mr John Lee, in the Legislative Council today (October 25):

#### Question:

Severe Typhoon Hato hits Hong Kong in August this year, causing widespread impacts and damages. The authorities received nearly 700 reports of fallen trees, eight reports of flooding and one report of landslide, and more than a hundred people sustained injuries and were taken to hospital for treatment. Hong Kong's local and external transport was almost paralysed. Moreover, the rainstorm during the typhoon flooded several underground car parks, resulting in a number of cars being damaged. Regarding contingency plans for handling natural disasters, will the Government inform this Council:

- (1) whether it has assessed the probabilities of the onslaught of typhoons and other types of natural disasters on Hong Kong in the next three years; if so, of the details;
- (2) whether the flood relieving capacities of the drainage systems of underground car parks are subject to regulation by the existing legislation; if not, whether the Government will consider formulating relevant design guidelines to prevent flooding in newly-built underground car parks during rainstorms; if so, of the details; if not, the reasons for that;
- (3) as some scientists have pointed out that extreme weather will become more common as a result of global warming, leading to more frequent occurrence of natural disasters (e.g. landslides), whether the authorities will step up publicity and education to further heighten public awareness of disaster preparedness; if so, of the details; if not, the reasons for that; and
- (4) whether the authorities will review in the coming year the overall contingency measures for the prevention and handling of natural disasters, as well as examine the effectiveness of the Contingency Plan for Natural Disasters and the series of forward-looking initiatives; if so, of the details?

#### Reply:

#### President,

Natural disasters that occur in Hong Kong are generally related to flooding and landslips resulting from rainstorms, as well as such impacts as strong wind, heavy rain and storm surges brought about by tropical cyclones. These conditions can result in disruption to transport and other essential services, and even inflict casualties. Attaching importance to the safety of citizens, the Government has formulated contingency plans to cope with all types of natural disasters and makes regular reviews and revisions to ensure the preparedness of its departments and organisations. The Government also heightens the citizens' safety awareness with regard to natural disasters through publicity and public education.

Upon consultation with relevant departments including the Hong Kong Observatory (HKO), the Buildings Department (BD) and the Civil Engineering and Development Department (CEDD), my reply to various parts of the question is as follows:

(1) As mentioned above, natural disasters that occur in Hong Kong are generally related to impacts brought about by rainstorms and tropical cyclones.

Regarding the impacts of rainstorms, there were about four days with a daily rainfall of 100mm or above every year on average according to the actual observations for 30 years starting from 1981. In respect of tropical cyclones, the records for 50 years starting from 1961 show that around six tropical cyclones entered the 500km range of Hong Kong annually. These statistics can be taken as reference for the forecast of Hong Kong over the next three years.

As regards storm surges associated with tropical cyclones, the recorded sea level at the Victoria Harbour exceeded 3.5m on three occasions during the post-war era, and the latest occurrence was a result of storm surges brought about by Hato in 2017. Statistically, there is an average of one occurrence every 30 years. Nevertheless, as it is only an average, the possibility of next occurrence of sea level exceeding 3.5m in less than 30 years cannot be ruled out.

Apart from rainstorms and tropical cyclones, earthquakes and tsunamis are destructive natural disasters. Hong Kong is unlikely to be affected by major tsunamis due to its geographic location. In the post-war years, Hong Kong registered seven tsunamis triggering abnormal sea level rises by a maximum of 0.3m above the normal tide level. As regards earthquake, Hong Kong is quite far away from active seismic belts and the chance of a major local tremor is slim.

- (2) Pursuant to the Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations (Cap 123I) (the Regulations), private buildings (including underground car parks) shall be provided with such pipes, drains and channels as are necessary for the disposal of all surface water from the buildings. Authorised persons responsible for private development projects shall design the drainage systems of the projects in such manner as required under the Regulations, as well as prepare and submit plans of the drainage systems for approval by the BD in accordance with the Buildings Ordinance. For plans approval, the BD will consult the Drainage Services Department (DSD) on the connexion of such drains to the public drainage systems of relevant buildings with reference to requirements and standards of the Regulations.
- (3) Global climate change may cause extreme weather to occur more frequently. To enhance public awareness of disaster prevention, government departments have been using different means to carry out publicity and public education. For instance, the HKO holds public education talks and activities on a regular basis, including the annual Science in the Public Service organised with other government departments and collaborating organisations. In 2017, the scientific talks of the Science in the Public Service included forums for direct exchange with members of the public on subjects covering the causes of natural disasters such as rainstorm, landslip, storm surge and their preventive measures to

enhance public awareness of disaster prevention. The HKO also makes regular visits to primary and secondary schools to give briefings on climate change. To enhance public understanding of the climate change issues, the HKO also organises the Hong Kong Observatory Open Day every year and produces relevant booklets and videos. In 2017, it produced a special series of Cool Met Stuff videos on typhoons for broadcasting on HKO YouTube and TV to raise public understanding of typhoon threats.

The BD regularly issues circular letters to registered construction professionals and registered contractors, urging them to pay special attention to scaffolding safety and take appropriate preventive measures against accidents of scaffolding collapse during typhoon season. The BD also reminds them to take preventive measures during rainy season to ensure proper maintenance and operation of temporary drainage systems at construction sites, in order not to adversely affect the public drainage system and thereby giving rise to flooding.

The DSD has been broadcasting its announcement in the public interest (API) on flood prevention through mass media. It also strengthens publicity and education in its talks and guided tours for the public and schools, with a view to heightening public awareness of disaster prevention. The DSD has published booklets on the main causes and points-to-note of flooding to remind the public to make appropriate preparation so as to prevent any loss from flooding.

The Geotechnical Engineering Office (GEO) under the CEDD has been actively strengthening its publicity and education to boost the response capability of the community in coping with landslip hazards. From time to time, the GEO has collaborated with other government departments and organisations to reach out to people of different age groups and foster their awareness of landslip prevention. For instance, the GEO collaborated with the HKO to conduct briefings on climate change and landslip hazard at schools, and assisted the HKO in producing a special series of Cool Met Stuff videos on landslip. It has also co-organised disaster precaution activities with the Hong Kong Red Cross, and participated in the Hong Kong SciFest hosted by the Hong Kong Science Museum to remind members of public, through talks and field visits, that climate change may increase the frequency of extreme weather and hence lead to a higher risk of landslip. To further enhance public awareness of disaster prevention, the GEO launched a new set of TV and radio APIs entitled "Landslide Selfhelp Tips" in 2017 to advise members of the public on ways to help themselves when a landslip occurs.

The Security Bureau (SB) has also published a booklet entitled "Simple Guidelines in the Event of Major Mishaps", with the purpose of providing the public with some simple guidelines to minimise danger as well as protect lives and property more effectively under the threat of natural disasters and serious accidents.

(4) After typhoon Hato, the SB has invited all those government departments listed in the Contingency Plan for Natural Disasters (Contingency Plan) to conduct a comprehensive review of their work and coordination with other departments, and to propose measures with a view to further enhancing their capability and efficiency in coping with natural disasters. Upon receipt of responses, the SB will follow up with these departments, and will consider if any revision to the Contingency Plan to incorporate enhancement measures is required.

On the other hand, the Climate Change Working Group on Infrastructure led by the Development Bureau is now coordinating the efforts of various works departments in combating climate change. The working group is actively studying ways to standardise design standards and strengthen the resilience of the major infrastructures of works departments against the impacts of climate change and extreme weather.

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