

Examination of Estimates of Expenditure 2010-11

Reply Serial No.

**CONTROLLING OFFICER'S REPLY TO
INITIAL WRITTEN QUESTION**

DEVB(PL)077

Question Serial No.

Head : 82 Buildings Department Subhead (No. & title) :

0196

Programme : Buildings and Building Works

Controlling Officer : Director of Buildings

Director of Bureau : Secretary for Development

Question :

In terms of geographical location, Hong Kong is not situated on the boundary of the Eurasian Plate. However, the Hong Kong Observatory has recorded a total of six earth tremors with epicentres located in Hong Kong since 1979. Although these local tremors were of intensity below V (5), which were low, it is quite difficult to take precautions against sudden and serious crustal movements. Due to the substantial increase in building heights in Hong Kong in recent years, many newly completed residential buildings are as tall as 50 or more storeys. As such, has the Buildings Department earmarked resources in 2010-11 to review the seismic-resistant designs and construction standards of buildings for enhancing their seismic resisting capability so that they can withstand an earthquake of intensity VIII (8)? If not, what are the reasons?

Asked by : Hon. CHEUNG Hok-ming

Reply :

As Hong Kong is not geographically situated within active seismic belts, the possibility of having serious earthquakes in the territory is relatively low. In fact, since 1905 when the Hong Kong Observatory started recording locally felt earth tremors, the strongest tremor ever recorded in Hong Kong was Intensity VI to VII on the Modified Mercalli Scale (MMS). This locally felt tremor, which occurred in 1918, was caused by an earthquake near Shantou which was more than 300 km away from Hong Kong, and inflicted minor damage on the walls of a few buildings constructed under the then prevailing building standards. This was the only earthquake that had caused damage in Hong Kong since 1905. The existing Buildings Ordinance does not specify

requirements for the design and construction of private buildings in Hong Kong to be seismic-resistant. However, as early as from the 1930s, buildings in Hong Kong had to be designed to withstand wind gusts of 130 km per hour. In the 1950s, this wind-resistance requirement was enhanced, and buildings have since been required to be designed and constructed to withstand wind gusts of 250 km per hour. Wind-resistant designs help strengthen building structures and thus give such buildings a high load-resisting capacity. Even if an earthquake of MMS Intensity VII occurs, such buildings will still be safe and will not suffer serious damage.

The Buildings Department has commissioned a consultancy study on seismic effects with the objective to assess the earthquake risks in Hong Kong and the effects of earthquakes on local buildings. The overall study has reached its final phase. The Administration is now carefully consolidating and considering the findings of the study and will consult the stakeholders in mapping out the way forward.

Signature _____

Name in block letters AU Choi-kai

Post Title Director of Buildings

Date 19 March 2010