

Breeze block blamed for urban heat

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Mong Kok and Causeway Bay are sweltering with the hottest temperatures in the city because of the urban heat island effect.

Professor Tim Oke of the University of British Columbia, who pioneered the theory, said the effect is due to the density and height of the buildings that block the sea breeze.



"It's because of the way Hong Kong is built that has caused an excess of temperature and there's no sign of this slowing down," Oke explained.

Experts said continued reclamation on the harborfront has worsened the effect over the years particularly in reclaimed areas, such as Olympic station.

According to a Polytechnic University study, temperatures in the territory's rural and urban areas may vary by as much as 12 degrees Celsius.

Hong Kong is one of six cities, including Atlanta and Vancouver, which experience maximum temperature differences.

"Twelve degrees is the maximum difference so Hong Kong is at the top of the scale," Oke said.

"If Kowloon is made bigger through reclamation the intensity of the UHI effect will increase. The cleaner air from the harbor is being intercepted by the walls of buildings."

Planners, Oke said, should build at a lower density to allow ventilation.

The PolyU research found the average temperature difference between rural and urban areas between 7 and 8 degrees on a winter night and between 5 and 6 degrees during summer.

PolyU reviewed satellite images and collected ground data through 20 trips on special mobile vehicles with temperature sensors.