## News

## HCMC subsiding at 16 mm a year: study

By Phan Anh September 21, 2022 | 06:20 pm PT

HCMC is among the fastest sinking cities in the world, subsiding by 16.2 mm annually, with groundwater extraction and high-rise buildings to blame, a study has found.

The study, led by Singapore's Nanyang Technological University, noted that with sea levels rising as ice sheets melt, land subsidence would worsen this issue, Singaporean newspaper *Straits Times* reported.

Cheryl Tay, a PhD student at the university and the first author of the study, said as coastal cities in Asia focus on growth and urbanization, demand for groundwater extraction also increases, leading to rapidly sinking land.

Satellite images of 48 coastal cities analyzed between 2014 and 2020 reveal that the average sinking speed was 16.2 mm a year, almost four times the rate of Indonesia's Jakarta (4.4 mm).

In HCMC, the high density of skyscrapers in regions with weak foundations has contributed to the subsidence.

Excessive groundwater extraction was mainly to blame, multiple reports said further.

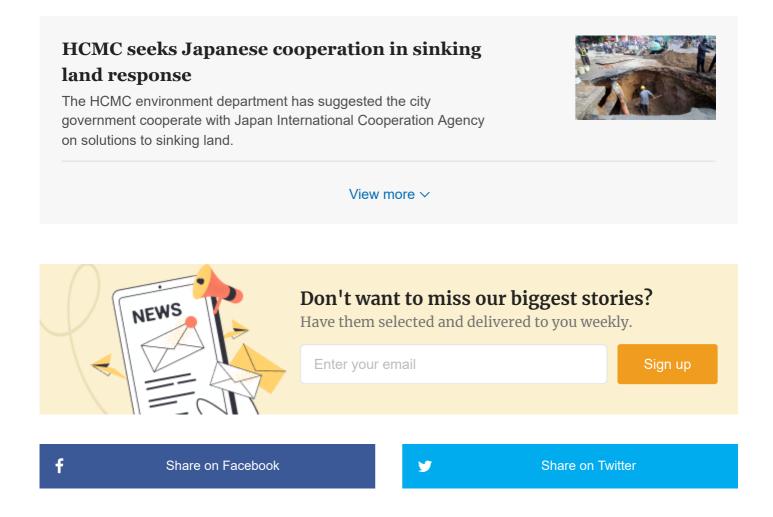
If the current sinking rate continues until 2030, another 20 km2 of the city could be below sea level and inundated, British magazine *New Scientist* claimed.

Tay said governments could ramp up coastal defenses to fight back, for example with sea walls and mangroves.

Another study done last month by the Japan International Cooperation Agency in collaboration with local government agencies said land in HCMC sinks by an average of 2-5 cm a year, resulting in frequent flooding.

In 2019 Climate Central, a U.S. nonprofit news organization that analyzes and reports on climate science, warned that most of southern Vietnam, including the Mekong Delta and economic hub HCMC, could be submerged by 2050.

Sea levels would increase by one meter by 2100 and 18% of HCMC and 39% of the delta could possibly submerge, it said.



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