

## Filled-up, full of risk

Geologists warn against building high-rises on reclaimed marshy lands, say Dhaka's declining groundwater threatens land subsidence

PINAKI ROY

High-rises on once marshy lands in the capital are at risk of falling over, as the groundwater level is dropping faster than ever.

It may not even need an earthquake for these multi-storey buildings to come tumbling down. Heavy rains after a long spell of dry weather may prove enough to make them topple over, said geological experts.

Mentioning the collapse of a building at Begunbari and tilts of several more in last few days, they said it all happened because the monsoon rains led to an 'upward water pressure' amid a falling groundwater level.

Explaining how that pressure is created, the experts said if the water level falls, the soil under the buildings adjusts itself to being without water.

But when it rains heavily after a long break, the groundwater water pushes the rainwater upwards, causing a movement on the ground.

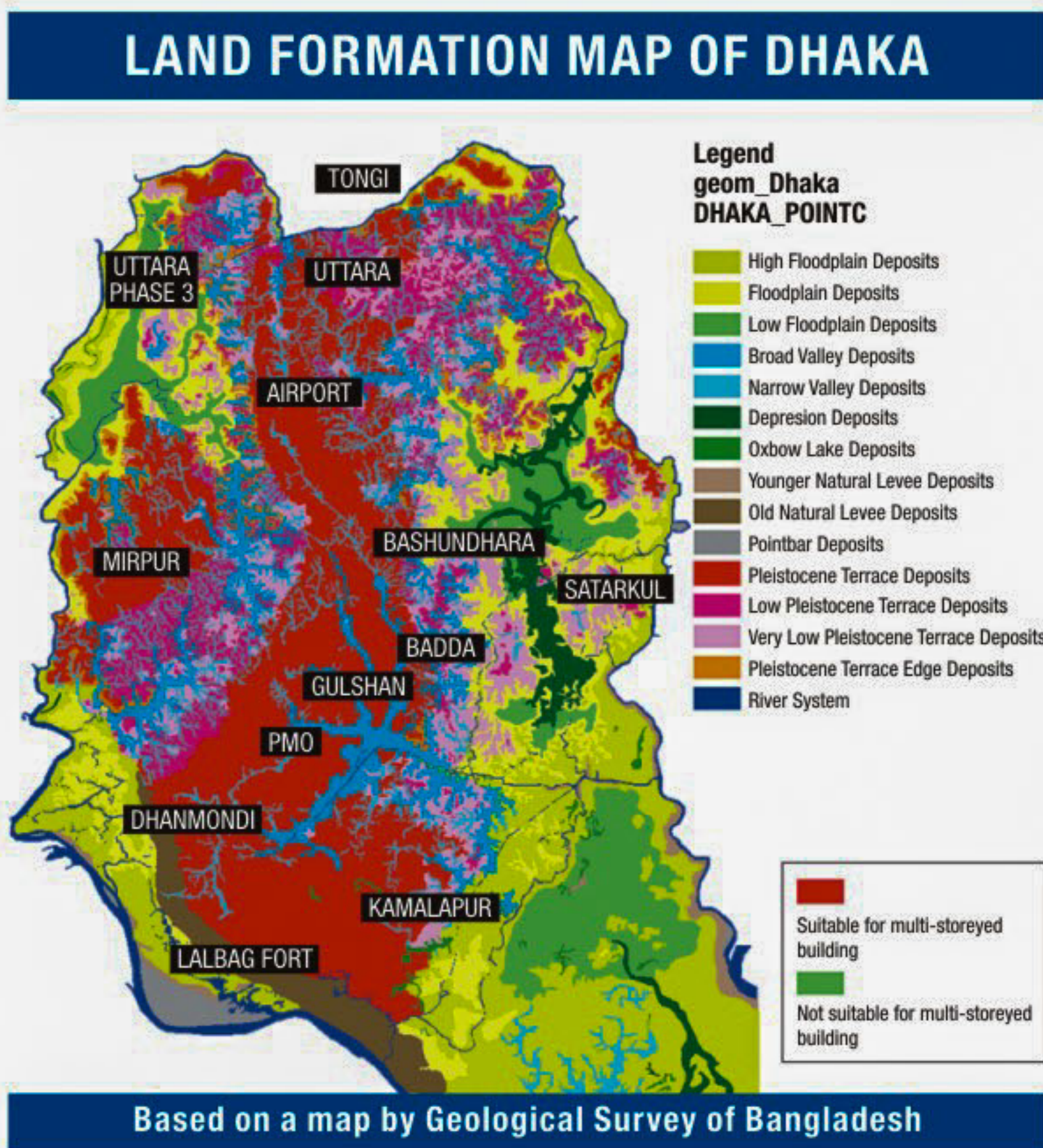
ATM Asaduzzaman, director of Geological Survey of Bangladesh, said many multi-storey buildings on weak foundations and filled-up wetlands might collapse if heavy rains continue for a few days at a stretch.

The groundwater level in the city has been going down by three metres a year, says a survey conducted by Bangladesh Agricultural Research Council and Water and Sewerage Authority.

Experts blame the fall on excessive extraction of water.

Geologist Khurshid Alam said Dhaka city stands on three categories of soil.

The oldest of them is Pliocene or Dipu Tila Sand. It was formed 35 lakh years ago



and is safe for multi-storey buildings.

Pleistocene or Madhupur clay, formed six to seven lakh years ago, is less stable.

Holocene or recent sediments, formed only 10,000 years back, is most unstable of the three formations.

Low-lying areas like Begunbari, Basabo and Meradia are on Holocene

formation.

Citing a recent survey over 60 square kilometres of filled-up land on the bank of Balu river in Satarkul, Asaduzzaman said some areas are so vulnerable that buildings on them could fall over despite 80 metres of piling.

The urban geology expert stressed

## Never-ending nightmares

RAKIB AHAMMED

Boishakh, the seven-year-old son of Mamun Mia, burns in fire. He screams and pleads to his father to save him. But Mamun cannot save his son from the flames as the nightmare he sees every time just ends there.

Sleep has become a dreadful experience for Mamun, an injured survivor of the Old Dhaka inferno. Mamun, who is receiving treatment at the Burn and Plastic Surgery unit of Dhaka Medical College Hospital, wakes up five to six times from his sleep from nightmares.

"I cannot sleep. Such nightmare haunts me every time whenever I close my eyes," he told this correspondent yesterday.

Mamun lost his son in the

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A girl in flood of tears embracing a relative in Nimtoli yesterday. Thursday night's blaze claimed her brother's life and burnt her sister, who is now struggling for life at a hospital.

PHOTO: SK ENAMUL HAQ

## One more dies from burns

38 Nimtoli victims fighting for life at CMH, DMCH

KAILASH SARKAR and SHAHEEN MOLLAH



## JS adopts condolence motion

STAFF CORRESPONDENT

Parliament yesterday passed a resolution expressing deep shock at the deaths caused by

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Another victim of Nimtoli fire died yesterday at the Combined Military Hospital in the capital, taking the death toll from the blaze to 118.

Seven-year-old Saim succumbed to wounds at about 4:00pm while his mother Lipi Ara was fighting for life at the Intensive Care Unit (ICU).

The two along with 12 others were shifted to the CMH from Dhaka Medical College Hospital on Friday.

Some 25 victims are undergoing treatment at the Burn and Plastic Surgery Unit at the DMCH.

Dr Samanta Lal Sen, project director of the unit, said most of

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## PMO to arrange Runa's wedding

HASAN JAHD TUSHER and KAILASH SARKAR

The Prime Minister's Office will arrange the wedding of Runa Akhter and Jamil, who lost most of their family members in the Nimtoli blaze on Thursday night.

A delegation from the PMO will represent the family of the bride, Runa while local Awami League lawmakers will represent the family of the bridegroom, Jamil, said a PMO official preferring anonymity.

A fire broke out in Runa's house, where a function was arranged for the engagement of 19-year-old Runa and 28-year-old Jamil at Nimtoli in

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