

Salt Lake sinking at an alarming pace: GSI

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Salt Lake, mostly built by filling up waterbodies and lakes, along with its adjoining areas in the metropolis,... [Read More](#)

KOLKATA: The bustling Salt Lake area, on the eastern fringes of Kolkata, is sinking at an alarming rate, a top scientist at the Geological Survey of India said.

Salt Lake, mostly built by filling up waterbodies and lakes, along with its adjoining areas in the metropolis, is experiencing groundwater depletion, which could be one of the reasons for land

subsidence, Sandip Som, director, Geological Survey of India, said. It is likely that parts of neighbouring Kolkata are also sinking, he said.

“Data recorded over the past two and a half years by the global positioning system (GPS) station at GSI’s Salt Lake office have revealed that the area is subsiding at a rate of nearly 19-20mm per year.

“As the station is able to obtain coordinates within 300-kilometre radius, we may also say that Kolkata is sinking,” Som said.

The GSI is trying to find out the major “problematic” areas to be able to fix the issue, he insisted. “Our calculations are minute with accuracy of plus or minus one millimetre for vertical and horizontal calculation. Land subsidence could be due to ground water withdrawal or tectonic movement, we can't say for sure,” he said.

Som also emphasized that metro cities across the country are dealing with the same predicament.

“GPS stations set up across the country have revealed that the cities of Jaipur, Dehradun, Hyderabad and Bengaluru are also sinking... The data further showed that the entire Himalayan foothills and its adjoining areas are subsiding at varying rates.

“However, the Himalayan mountain range is rising. Also, Patna and Nagpur are rising, all due to varied movements of the tectonic plates,” he said.

Of the cities facing subsidence, Jaipur and Salt Lake, in the neighbourhood of Kolkata, are the worst affected, the GSI director maintained.

Talking about the western part of the country, he said a “folding process” is currently under way.

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Probably the Fault line lying 6-7km below Kolkata is getting activated. This fault line runs from behala to central Kolkata takes a curve to beleghata and move on to rajarhat and finally towards Bang...[Read More](#)

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Folds occur when a stack of originally flat surfaces, become bent or curved under varied conditions of stress, hydrostatic pressure, pore pressure, and temperature gradient.

“The West coast is also buckling. Researchers have found out through geophysical studies that a folding process is under way in the west coast of the country. We have two GPS stations, one at [Thiruvananthapuram](#) and another at Pune, which

have also reported similar developments,” he stated. A total of 22 observatories have been set up in the country, including the one is Salt Lake, for geological and geo-physical mapping. “At the moment, 22 GPS and 10 broadband stations are operational. We are planning to establish a total of 35 permanent GPS stations along with broadband seismograms,” Som added.