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## Using subsidence scenarios to assess flood risk to delta cities under future sea level rise.

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City level coastal subsidence can be caused by a number of factors, both natural (e.g. compaction) and anthropogenic (e.g. ground water extraction). Past observations in cities indicates that the rate of subsidence can be altered through policy intervention (e.g. Tokyo's ban on ground water pumping in 1970's). Given vertical land motion is a key component in local sea level projections where subsidence amplifies the onset of future damages, we test the extent to which intervention could reduce risk with a simple city level coastal damage model. We adjust water levels to embed different time dependent subsidence scenarios over the 21st century. We contend that local policy intervention to slow anthropogenic subsidence where possible will slow the onset of damaging sea level rise thus reducing potential coastal damages, and reduce the required increases in future flood protection heights. Performed in tandem with global mitigation efforts, cities currently under major threat may yet survive the climate crisis.