

Interactive comment on “Detailed quantification of delta subsidence, compaction and interaction with man-made structures: the case of the NCA airport, France” by O. Cavalié et al.

P. Ciavola

cvp@unife.it

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Dear colleague,

in your review you mention a number of other cases of subsidence around the world, including the Po Delta. I would like to point out a recent paper

Taramelli, A., Di Matteo, L., Ciavola, P., Guadagnano, F., and Tolomei, C. (2014). Temporal evolution of patterns and processes related to subsidence of the coastal area surrounding the Bevano River mouth (Northern Adriatic)–Italy. OCEAN & COASTAL MANAGEMENT. doi:10.1016/j.ocecoaman.2014.06.021

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In this paper we used an innovative integration of remote sensing and monitoring methods (Permanent Scatter Interferometric Synthetic Aperture Radar and PSInSAR, Small BAeline Subset e SBAS and Empirical Orthogonal Function e EOF analysis of 20 years of Landsat) to study the temporal evolution of subsidence and its correlation with natural and anthropogenic causes. Results show an increase of the subsidence rates obtained for the last decade: the amount of subsidence due only to natural causes is typically a few millimetres per year, while the man-induced subsidence reaches values of several millimetres per years. Marshlands reclamation, groundwater pumping for agricultural and industrial purposes and methane extraction from gas fields near the coastline are the principal anthropogenic causes.

Have you considered any of these aspects in your study?

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