



Newsletter of the Unesco Land Subsidence International Initiative

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Conference Announcement

The poster features a dark blue background with a large, bold white 'ST' at the top left. Below it, the word 'THE' is written in large white letters. A central photograph shows a deep, jagged crack in the ground, illustrating land subsidence. To the right of the crack, the text 'INTERNATIONAL CONFERENCE ON REDUCING THE EFFECTS OF LAND SUBSIDENCE ON BUILDINGS AND URBAN INFRASTRUCTURES' is written in bold blue letters. Below this, the year '2022' is displayed in large white numbers, followed by 'NOV 16-17 Tehran, Iran' in white text. On the left side, there is a logo for the Ministry of Roads and Urban Development, featuring a stylized star and crescent with Persian text. Below the logo, the text 'Ministry of Roads and Urban Development Deputy of Housing and Construction Iran National Building Regulations' is written in small white letters. At the bottom left, the website 'https://inbr.ir' and email 'LSOB@inbr.ir' are provided in white text. The bottom right corner shows a collage of images related to land subsidence, including a road and a building.

New Literature

Bangladesh,

Md. Ashrafuzzaman et al.,

Dynamics and Causes of Sea Level Rise in the Coastal Region
of Southwest Bangladesh at Global, Regional, and Local Levels

<https://www.mdpi.com/2077-1312/10/6/779>

Indonesia, Lampung Province

Redho Surya Perdana et al.,

Determining The Location of Land Subsidence Observation Points Based on Lithological Data and
Land Cover Changes in Lampung Province

<https://jurnal.uns.ac.id/GeoEco/article/view/50412/0>

Iran

Mahdi Panahi, Khabat Khosravi, Ali Golkarian, Mahsa Roostaei, Rahim Barzegar, Ebrahim Omidvar,
Fatemeh Rezaie, Patricia M. Saco, Alireza Sharifi, Changhyun Jun, Sayed M. Bateni, Chang-Wook Lee
& Saro Lee (2022) A country-wide assessment of Iran's land subsidence susceptibility using satellite-
based InSAR and machine learning, Geocarto International, DOI: 10.1080/10106049.2022.2086631

<https://www.tandfonline.com/doi/abs/10.1080/10106049.2022.2086631?src=&journalCode=tgei20>

Italy, Po Plain

Celine Eid et al.,

Fluid Production Dataset for the Assessment of the Anthropogenic Subsidence in the Po Plain Area
(Northern Italy)

June 2022Resources 11(6):53 Follow journal

DOI: 10.3390/resources11060053

https://www.researchgate.net/publication/361033471_Fluid_Production_Dataset_for_the_Assessment_of_the_Anthropogenic_Subsidence_in_the_Po_Plain_Area_Northern_Italy

PR China, Shandong Province

Li, F.; Liu, G.; Gong, H.; Chen, B.; Zhou, C. Assessing Land Subsidence-Inducing Factors in the
Shandong Province, China, by Using PS-InSAR Measurements. Remote Sens. 2022, 14, 2875.

<https://doi.org/10.3390/rs14122875>

<https://www.mdpi.com/2072-4292/14/12/2875>

PR China, Shanghai

Shan, X., Wang, J., Wen, J. et al. Using Multidisciplinary Analysis to Develop Adaptation Options
against Extreme Coastal Floods. Int J Disaster Risk Sci (2022). <https://doi.org/10.1007/s13753-022-00421-6>

PR China, Wuhan Province

Zhao, Y.; Zhou, L.; Wang, C.; Li, J.; Qin, J.; Sheng, H.; Huang, L.; Li, X. Analysis of the Spatial and Temporal Evolution of Land Subsidence in Wuhan, China from 2017 to 2021. *Remote Sens.* 2022, 14, 3142. <https://doi.org/10.3390/rs14133142>

<https://www.mdpi.com/2072-4292/14/13/3142>

SE Asia

Anna-Katharina Hornidge et al.,

THE 'WICKEDNESS' OF GOVERNING LAND SUBSIDENCE: POLICY PERSPECTIVES FROM URBAN SOUTHEAST ASIA

External Publications (2021)

PLoS ONE 16 (6), article e0250208

<https://www.idos-research.de/en/others-publications/article/the-wickedness-of-governing-land-subsidence-policy-perspectives-from-urban-southeast-asia/>

Spain, Alto Guadalentín Aquifer

Béjar-Pizarro, Marta et al. "Interpolation of GPS and Geological Data Using InSAR Deformation Maps: Method and Application to Land Subsidence in the Alto Guadalentín Aquifer (SE Spain)." *Remote Sensing* 8.11 (2016): 965. Web.

https://www.academia.edu/81447914/Interpolation_of_GPS_and_Geological_Data_Using_InSAR_Deformation_Maps_Method_and_Application_to_Land_Subsidence_in_the_Alto_Guadalent%C3%ADn_Aquifer_SE_Spain

USA, California

Matthew Lees et al.,

Development and Application of a 1D Compaction Model to Understand 65 Years of Subsidence in the San Joaquin Valley

<https://doi.org/10.1029/2021WR031390>

And USGS Report:

Hydrogeology and Simulation of Groundwater Flow in the Lucerne Valley Groundwater Basin, California

Scientific Investigations Report 2022-5048

Prepared in cooperation with the Mojave Water Agency

By: Christina Stamos-Pfeiffer, Joshua D. Larsen, Robert E. Powell, Jonathan C. Matti, and Peter Martin

<https://doi.org/10.3133/sir20225048>

Mining

PR China, Huainan City

Wang, X. et al., Response of Land Use and Net Primary Productivity to Coal

Mining: A Case Study of Huainan City and Its Mining Areas. Land 2022, 11, 973. <https://doi.org/10.3390/land11070973>

<https://www.mdpi.com/2073-445X/11/7/973/pdf?version=1656237185>

USA, Pennsylvania

DEP unveils new website to identify mine-subsidence risk

<https://archive.triblive.com/news/pennsylvania/dep-unveils-new-website-to-identify-mine-subsidence-risk/>

Modelling

Hao-Jie Li, Hong-Hu Zhu, Hai-Ying Wu, Bao Zhu, Bin Shi, Experimental investigation on pipe-soil interaction due to ground subsidence via high-resolution fiber optic sensing, Tunnelling and Underground Space Technology, Volume 127, 2022, 104586, ISSN 0886-7798,

<https://doi.org/10.1016/j.tust.2022.104586>.

YOUTUBE

About 7 minutes:

Learn about why land is sinking, often much faster than sea level is rising. ... Land Subsidence

https://www.youtube.com/watch?v=Xw15iM5XqXw&ab_channel=alanzvids

From the Press

India, Lucknow

Lucknow, a case study for permanently disappearing aquifers in north India

<https://india.mongabay.com/2022/06/lucknow-a-case-study-for-permanently-disappearing-aquifers-in-north-india/>

Iran

A brief review of destruction of environment in Iran in four decades

<https://iran-hrm.com/2022/06/05/destruction-of-environment-in-iran-in-four-decades/>