In a few weeks we will meet in TISOLS! Look at the website: [https://www.tisols.org/](https://www.tisols.org/)

**Special Issue**

**Water Security Special Issue**

Call for papers all for Abstracts - Water Security | ScienceDirect.com by Elsevier

Groundwater and Land Subsidence: A Chronic Water Security Challenge

Guest Editors: Ariel Dinar, University of California, Riverside, USA Upmanu Lall, Columbia University, New York, USA

Evidence from around the world suggests an a-priori direct link between continuous groundwater over-pumping and land subsidence. Impact of Groundwater-induced (GW) Land Subsidence (LS) affects humans, infrastructure, and the environment. While many papers have been published on different aspects of GW and LS, still the links between GW pumping, LS rates and the social, physical and economic impacts are not clear and well defined.

The purpose of this special issue is to address gaps in knowledge of the various disciplines dealing with different aspects of the interaction between GW and LS. We seek contributions from different disciplines, including sociology, hydrology, engineering, economics, political science, and others.

Papers should not exceed approximately 4000 words (not including references and abstract).

Papers can be submitted as review articles, which will summarize the current state of understanding on a topic selected from the list below, offering a critical evaluation of the literature, and highlight important issues and trends in that area. Papers can also be synthesis articles that make a sincere effort to capture the key questions, identify the gaps in our knowledge today, and suggest new approaches or ideas to address a certain topic.

For more information see the Guide for Authors.
Papers should address any of the following topics:

1. Impact of GW management or historical extraction on LS, covering one or more of:
   a. Managed recharge
   b. Regulated pumping
   c. GW institutions role

2. Impact of GW-induced LS on human livelihood and economic activity

3. Impact of GW-induced LS on flood risk in coastal regions

4. Impact of GW-induced LS on health of affected population

5. GW-LS impacts on environmental amenities

6. Data needs for appropriate LS mapping, impact analysis and attribution to GW dynamics

7. Economic assessment of GW-induced LS

8. Distributional impacts of LS on rich and poor people

9. LS impact on flood risk in coastal cities

10. Climate driven GW dynamics and their effect on LS outcomes

Overview articles that discuss the many dimensions of the issues above with reference to a specific region or for a cross-setting analysis are especially welcome.

The selection process will consist of two stage evaluation. To be considered please submit a 1-page abstract. Following a preliminary review of the abstracts, authors of accepted abstracts will be invited to submit their papers. Submitted papers are subject to peer review, following the journal review process.

Timeline

Abstracts due: 7th May 2023
Invitation to submit a full paper: 17th July 2023
Full papers due: 18th December 2023
Special Issue ready for publication: June 2024

Please send your abstract to Ariel Dinar by 7th May 2023 at: adinar@ucr.edu, clearly marked: WASEC GW LS Abstract Submission – (Author surname).
New Literature

**General**

Ploutarchos Tzampoglou et al.,

Selected Worldwide Cases of Land Subsidence Due to Groundwater Withdrawal

March 2023, Water 15(6):1094; DOI: 10.3390/w15061094


Rafael Jan Pablo Schmitt, Philip Simon Johannes Minderhoud

Data, knowledge and modeling challenges for science-informed management of river deltas.

(Preprint) https://eartharxiv.org/repository/view/5163/

**Algeria, Cheria Basin**

Loubna Hamdi et al.,

Ground Surface Deformation Analysis Integrating InSAR and GPS Data in the Karstic Terrain of Cheria Basin, Algeria

https://www.researchgate.net/publication/369105151_Ground_Surface_Deformation_Analysis_Integrating_InSAR_and_GPS_Data_in_the_Karstic_Terrain_of_Cheria_Basin_Algeria

**Egypt, Norther Coast**


**India, Chandigarh**

Arjuman Rafiq Reshi et al.,

Estimating Land Subsidence and Gravimetric Anomaly Induced by Aquifer Overexploitation in the Chandigarh Tri-City Region, India by Coupling Remote Sensing with a Deep Learning Neural Network Model

https://www.researchgate.net/publication/369370959_Estimating_Land_Subsidence_and_Gravimetric_Anomaly_Induced_by_Aquifer_Overexploitation_in_the_Chandigarh_Tri-City_Region_India_by_Coupling_Remote_Sensing_with_a_Deep_Learning_Neural_Network_Model

**Indonesia, Jakarta**

Kusumanto, Yanti et al.,

ACM as a pathway to mitigate Jakarta's flood impacts in a changing climate

(ACM stands for: Adaptive Collaborative Management)

https://dspace.library.uu.nl/handle/1874/427352
**Indonesia, Jakarta**

Rahmawati Fitria et al.,
The causal loop diagram model of flood management system based on eco-drainage concept
March 2023
Sustainere Journal of Environment and Sustainability 6(3):185-196


**Indonesia, Semarang**

Wahyu Luqmanul Hakim et al.,
InSAR time-series analysis and susceptibility mapping for land subsidence in Semarang, Indonesia using convolutional neural network and support vector regression.


**Iran, Varamin Plain**

Mojtaba Zangeneh et al.,
Developing a decision-making model for improving the groundwater balance to control land subsidence

https://econpapers.repec.org/article/caajnlswr/v_3a18_3ay_3a2023_3ai_3a1_3aid_3a57-2022-swrr.htm

**Mexico, Mexico City**

Mohammad Khorrami et al.,
Groundwater Volume Loss in Mexico City Constrained by InSAR and GRACE Observations and Mechanical Models
DOI: 10.1029/2022GL101962


**Pakistan, Gwadar City**

Bokhari, Rida et al.,
Land subsidence analysis using synthetic aperture radar data

https://www.diva-portal.org/smash/record.jsf?aq2=%5B%5B%5D%5D&c=9&af=%5B%5D&searchType=LIST_LATEST&sortOrder2=title_sort_asc&query=&language=en&pid=diva2%3A1744936&aq=%5B%5B%5D%5D&sf=all&aqe=%5B%5D&sortOrder=author_sort_asc&onlyFullText=false&noOfRows=50&dswid=3079

**PR China, Bohai Bay**


https://doi.org/10.1007/s10064-023-03121-7
PR China, Tianjin
Xiao Yu et al.,
Land Subsidence in Tianjin, China: Before and after the South-to-North Water Diversion
https://www.mdpi.com/2072-4292/15/6/1647

PR China, Yellow River Delta
Rongrong NING et al.,
Analysis of Ground Settlement in the Yellow River Delta and Projection of Seawater Inundation

Taiwan, Yunlin County
https://www.nature.com/articles/s41598-023-31390-5

Vietnam, Ho Chi Minh City
The subsidence prediction due to load characteristics of underground structures in soft soil in Ho Chi Minh City
The article presents predicting land subsidence in the influence of external load such as pile foundation, increased load due to construction or change of transport infrastructure to twin tunnels to analytical and numerical methods.
Mapping

Japan
New map of Japan shows shifts in ground surface
Peat

**Indonesia, Riau**

Sigit Sutikno et al.,

Water Management for Integrated Peatland Restoration in Pulau Tebing Tinggi PHU, Riau


**Malaysia, Sarawak**

Hasimah Mos et al.,

Differences in CO2 Emissions on a Bare-Drained Peat Area in Sarawak, Malaysia, Based on Different Measurement Techniques

Spain, Alicante

https://www.youtube.com/watch?v=Rszts1LS_0k&ab_channel=UA-Universitatd%27Alacant%2FUniversidaddeAlicante