# Article information:

Remote Sensing | Free Full-Text | Recovering Regional Groundwater Storage Anomalies by Combining GNSS and Surface Mass Load Data: A Case Study in Western Yunnan  
<https://www.mdpi.com/2072-4292/14/16/4032>

# Article summary:

1. China is characterized by an uneven spatiotemporal distribution of water resources due to the impacts of climatic and topographic characteristics.

2. The two main GWS monitoring approaches consist of in situ monitoring of groundwater level fluctuations and using Gravity Recovery and Climate Experiment (GRACE) and Global Land Data Assimilation System (GLDAS) data to invert the spatiotemporal characteristics of GWS.

3. This study aims to verify the feasibility and reliability of the combined CORS high-resolution surface mass load inversion for GWSA based on an already-established CORS network, thus avoiding additional establishment costs.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article provides a comprehensive overview of the current state of groundwater storage anomalies (GWSA) assessment in China, particularly in Yunnan Province, as well as a discussion on the potential use of GNSS and surface mass load data for regional GWSA monitoring. The article is well-structured and provides a clear explanation of the research objectives, methods used, results obtained, and conclusions drawn from them.

The article does not appear to be biased or one-sided; it presents both sides equally by discussing both traditional methods such as in situ monitoring of groundwater level fluctuations as well as more modern approaches such as GRACE/GLDAS data-based approach for large-scale regional GWSA monitoring. It also acknowledges potential limitations associated with each method, such as costliness or low resolution respectively.

The article does not appear to contain any unsupported claims or missing points of consideration; all claims are supported by evidence from previous studies which are cited throughout the text. Furthermore, all potential risks associated with each method are noted and discussed in detail.

The only potential issue with this article is that it does not explore any counterarguments or alternative approaches that could be used for regional GWSA monitoring; however, this is likely due to space constraints rather than any bias or lack of consideration on behalf of the authors.

In conclusion, this article appears to be trustworthy and reliable; it provides a comprehensive overview of current methods used for regional GWSA monitoring while acknowledging their respective limitations without appearing biased towards any particular approach.

# Topics for further research:

* Groundwater storage anomalies monitoring
* GRACE/GLDAS data-based approach
* In situ groundwater level monitoring
* Regional groundwater storage anomalies
* Groundwater storage anomalies assessment
* Alternative approaches for GWSA monitoring

# Report location:

<https://www.fullpicture.app/item/d1d6824e53764e2184caf0a3c98fb563>