

JIANG WATER STORAGE PROJECT



Does water storage change over China between 1948 to 2015? Here, we aimed to present long-term spatial patterns of TWS over China between 1948 to 2015 by unique Global Land Data Assimilation System Version 2 data and identify possible factors to water storage changes. The results revealed that the inner-annual variations in TWS of China exhibited remarkable downward trends with decreased rate of 0.1???cm/yr.



Will human intervention stabilize groundwater storage across the North China Plain? Yang W, Long D, Scanlon B R, et al. Human intervention will stabilize groundwater storage across the North China Plain. Water Resources Res, 2022, 58: e2021WR030884 Yang Y, Yang Y, Moiw J P, et al. Estimation of irrigation requirement for sustainable water resources reallocation in North China. Agric Water Manage, 2010, 97: 1711???1721



Where does water storage increase in China? Specifically, Northeast China, the YR, and Southwest China, where deeper reservoirs predominate, witnessed a significant rise in total water storage, whereas the shallower reservoir-dominated Eastern China and Northwest China reported declining water storage.



Do water resources management measures affect land water storage? Several water resources management measures have been implemented in recent decades to alleviate groundwater depletion, maintain ecological resilience, and sustain agricultural production. This study aims to investigate their impacts on land water storage, and thus obtain a picture of the spatio-temporal variation of water resources over the NCP.



Does total water storage continuously decrease in North China Plain (NCP)? In this study, multi-satellite products and modeled variables were used to investigate the total water storage (TWS) and the dynamics of its components in the North China Plain (NCP). The main conclusions of this study are: The spatial pattern of TWSA indicates that the water storage continuously decreased in most parts of NCP.

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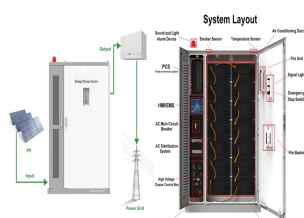
How fast does water storage increase in Northeast China? In Northeast China (NE), large reservoirs witnessed an expansion in both inundated area and water storage, with rates of 113 ± 20 km² per year (2.9 ± 0.5% per year) and 3.2 ± 0.6 km³ per year (4.0 ± 0.8% per year) over the entire study period.



We then retrieve the spatial???temporal variations of total groundwater storage, recoverable groundwater storage, and irreversible groundwater storage. Groundwater storage depletion rates are apparently ???



Food and water security are crucial for sustainable development in arid regions. However, land use/cover change often leads to trade-offs between grain yield and water-related ecosystem services



By penetrating the water body with a green band laser, airborne Lidar is an efficient method for mapping the water depth (Cr?taux et al., 2005, Cr?taux et al., 2011, Cr?taux et al., ???



The issue of salt precipitation during CO₂ geological storage in saline aquifers has presented significant challenges to the injectivity of current CO₂ geological storage projects.



In contrast, anthropogenic activities (agricultural irrigation, industrial water use, etc.) and accelerated glacial melting due to global warming are the dominant factors in the decline of water storage; (c) the contribution of ???

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China is the largest agricultural country with the largest population and booming socio-economy, and hence, remarkably increasing water demand. In this sense, it is practically critical to obtain knowledge about spatiotemporal ???



Download Table | Different Types of Water Storage from publication:
Scale issues in the governance of water storage projects | In the face of
global change, which is characterized by growing water



Here, we aimed to present long-term spatial patterns of TWS over China between 1948 to 2015 by unique Global Land Data Assimilation System Version 2 data and identify ???