

## Special Issue

# Assessment of Climate Change Impact on Terrestrial Ecosystems in Arid Regions Using Remote Sensing Data

### Message from the Guest Editors

Climate change has emerged as one of the most pressing global challenges, profoundly reshaping the structure, function, and sustainability of terrestrial ecosystems. Rising temperatures, altered precipitation regimes, and the increasing frequency of extreme events are influencing vegetation dynamics, biodiversity patterns, and ecosystem services at multiple spatial and temporal scales. In this context, remote sensing is an indispensable process for monitoring, modeling, and understanding these changes with high spatial and temporal resolution, and across extensive geographic areas. This Special Issue aims to bring together innovative research that leverages remote sensing data to assess the impacts of climate change on terrestrial ecosystems. We particularly welcome contributions that explore vegetation phenology, land degradation, ecosystem productivity, carbon and water fluxes, and land cover dynamics in response to climatic variability and change. Studies that integrate multi-source remote sensing, advanced modeling techniques (e.g., machine learning, ecosystem process models), and ground-based observations are strongly encouraged.

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### Guest Editors

Dr. Xiaofei Ma

Prof. Dr. Martin Welp

Prof. Dr. Ümüt Halik

Dr. Lei Shi

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### Deadline for manuscript submissions

31 January 2026



## Remote Sensing

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### Message from the Editor-in-Chief

*Remote Sensing* is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

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### Editor-in-Chief

Dr. Prasad S. Thenkabail

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