

Special Issue

Impacts of Climate Change and Human Disturbances on Carbon Cycling and Greenhouse Gas Emission in Ecosystems

Message from the Guest Editor

Human activities and greenhouse gas emissions that feedback into climate have been greatly impacted by global climate change. C cycling changes are brought by a combination of a warmer climate and intensified human activities, which are reflected in ecosystem functions and processes. Significant uncertainties exist between them.

This Special Issue focus on developments that have improved carbon cycling, greenhouse gas emissions, and climate–human interactions, and create better adaptations for preserving the stability and function of ecosystems in terms of the mitigation and adaptation to climate change. It aims at but are not limited to:

Human–climate interactions;

The effects of urban human activity on the regional climate and ecosystem functions and processes;

Carbon and other element cycling, and greenhouse gas emissions;

The reactions of biological and ecological processes to climate change and human disturbances;

The interactions of vegetation and hydrology with climate change and human disturbances;

The responses of biogeochemistry to climate change and human disturbances;

The responses of microbial communities and functions to climate change and human disturbances.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Climate (ISSN 2225-1154) was established in 2013 to provide an open-access outlet for innovative research, review articles, new direction papers, and short communications relevant to all disciplines related to climate at all scales. The journal encourages papers ranging from climate change detection and attribution and Earth system modeling to ecosystem, hydrologic, and socioeconomic impacts and climate mitigation and adaptation measures. The influence of *Climate* is strong and growing (IF 3.2 in 2024, CiteScore 5.7 in 2024).

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 20.8 days after submission; acceptance to publication is undertaken in 3.8 days (median values for papers published in this journal in the second half of 2025).