

アジア陸域におけるCO₂収支のトップダウン・ボトムアップ手法の統合解析Synthesis of top-down and bottom-up estimations of terrestrial CO₂ budget in Asia

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In the framework of Environment Research and Technology Development Funds (2-1401) from the Ministry of the Environment of Japan, we initiated synthesis analysis toward better estimations and understandings of terrestrial CO₂ budget in Asia. We used multiple different data products such as atmospheric inverse analysis (top-down estimation), terrestrial ecosystem models, remote sensing data, and data-driven models (bottom-up estimation). Our analysis focuses on (1) inter-decadal changes in terrestrial CO₂ fluxes at continental scales (Asia and Siberia), (2) testing consistency of terrestrial sink magnitude between top-down and bottom-up estimations in Asia, and (3) detection and analysis of 'hotspot' of terrestrial CO₂ budget changes in Siberia and tropical Asia. We will show these progresses, and discuss future direction of these studies.

Acknowledgement

This study was supported by the Environment Research and Technology Development Funds (2-1401) from the Ministry of the Environment of Japan, and the JSPS KAKENHI (grant No. 25281003).

キーワード：陸域、統合解析、二酸化炭素

Keywords: Terrestrial, Synthesis, Carbon Dioxide