Assignment 2: Coherent writing

Directions

In this assignment, you will revise the given paragraph so that it is thematically coherent, flows well, and contains no grammatical errors. After finishing the assignment, please submit it online **here**. This assignment is due on November 29, 2023.

The huge uncertainties in the global carbon (C) budget are related to the terrestrial C cycle. Reducing these uncertainties requires improving the accuracy of estimating C flux between the atmosphere and terrestrial ecosystems. Soil respiration (R_s) is the second-largest C flux between the atmosphere and terrestrial ecosystems, at 75–100 Pg C yr^{-1}, it is roughly 9 times larger than anthropogenic C emissions. It is well known that R_s plays a key role in regulating the atmospheric carbon dioxide (CO_2) concentration and climate feedback. A slight change in annual R_s flux may cause a significant alteration in global CO_2 concentration. Over the past decades, R_s has shown an increasing trend due to continuous climate warming. Considering its significance in the global C cycle, clearly accurate measurement of R_s is a key issue for the assessment of the feedback between terrestrial ecosystems and climate change, and subsequently, the establishment of models. However, how to accurately measure the R_s is still under debate and development. If soil CO_2 emissions cannot be accurately measured, predictions of long-term dynamic soil C pools using process representations in models will remain in error.