

# Vegetation can help prevent soil erosion due to wind

January 20 2015

---

Dust from soil erosion due to wind can affect human health, traffic, and, on a larger scale, climate.

Investigators compared different models that quantify how the wind energy spreads over an herbaceous surface using data from the Sahel region of Africa, where estimates of [dust emissions](#) remain uncertain.

They found that the modeling tools give results in reasonable agreement, indicating that vegetation can decrease the amount of dust emitted from [soil erosion](#) by 6% to 26% in mass compared with bare soil.

"This study is a step towards a better quantification of dust emissions in the Sahel, where wind erosion can be a major issue," said Dr. Caroline Pierre, lead author of the *Journal of Geophysical Research: Earth Surface* study.

"The importance of such work is reinforced by the strong change in Sahelian land uses over the last decades."

**More information:** Pierre, C., G. Bergametti, B. Marticorena, L. Kergoat, E. Mougin, and P. Hiernaux (2014), Comparing drag partition schemes over a herbaceous Sahelian rangeland, *J. Geophys. Res. Earth Surf.*, 119, 2291-2313, [DOI: 10.1002/2014JF003177](https://doi.org/10.1002/2014JF003177)

Provided by Wiley

Citation: Vegetation can help prevent soil erosion due to wind (2015, January 20) retrieved 27 April 2024 from <https://phys.org/news/2015-01-vegetation-soil-erosion-due.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.