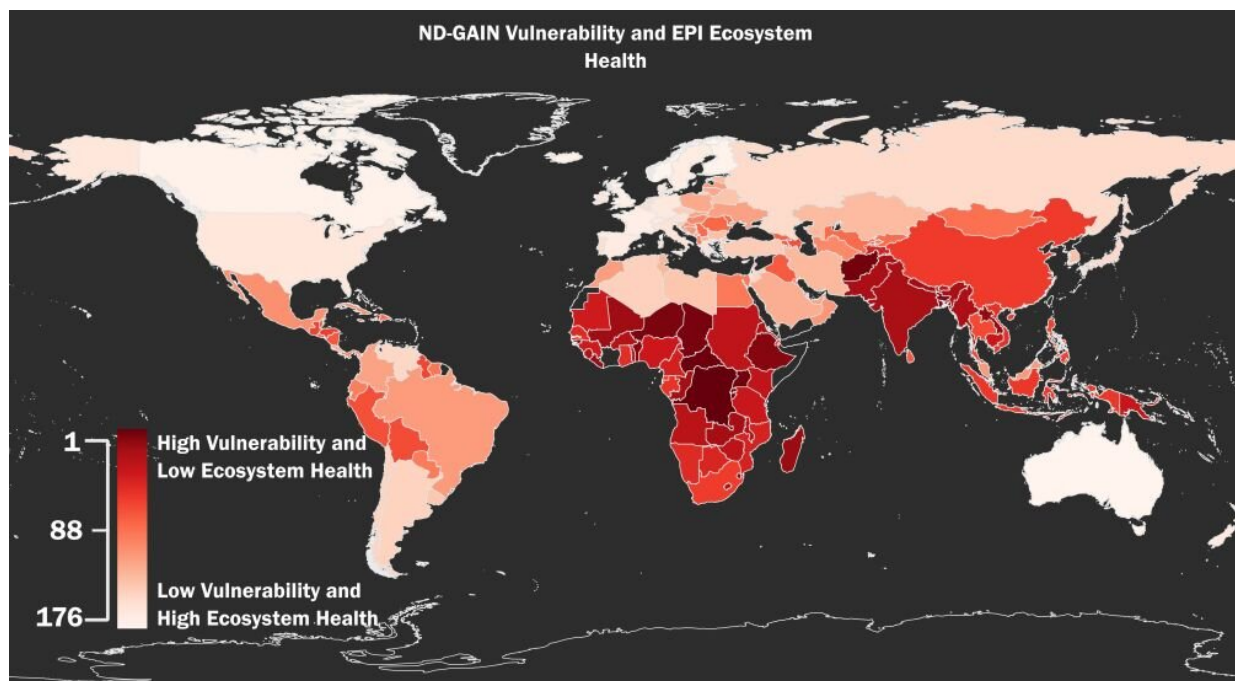


New analysis reveals global distribution of toxic pollution and climate change

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The global distribution of the combined toxic-climate risk. The global distribution of the combined risk of toxic pollution (low or high ecosystem health) and climate impacts (high or low vulnerability) risk using the average of the by-country rank-order of Vulnerability and Eco-health. Credit: Marcantonio et al, 2021, PLOS ONE (CC-BY 4.0, creativecommons.org/licenses/by/4.0/)

A new analysis of global datasets shows low-income countries are significantly more likely to be impacted by both toxic pollution and

climate change—and provides a list of at-risk countries most (and least) able to immediately begin direct efforts toward pollution risk reduction, according to a study published July 7, 2021 in the open-access journal *PLOS ONE* by Richard Marcantonio from the University of Notre Dame, Indiana, U.S., and colleagues.

In this age of the Anthropocene, it's clear that human activities are destabilizing our planet across multiple systems. Previous research has shown that low-income countries face higher risks than high-income countries from [toxic pollution](#) and [climate](#) change; however, few studies have explored the relationship between these two risks.

To test the relationship between toxic [pollution](#) and climate change, the authors collated and analyzed three frequently used public datasets, ND-GAIN (Notre Dame Global Adaptation Index), EPI (Yale Environmental Performance Index), and GAHP (Global Alliance on Health and Pollution), using data for 176 countries from 2018.

They found a strong ($r_s = -0.798$; 95% CI $-0.852, -0.727$) and statistically significant (p

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